

THE MILLING WORLD

AND

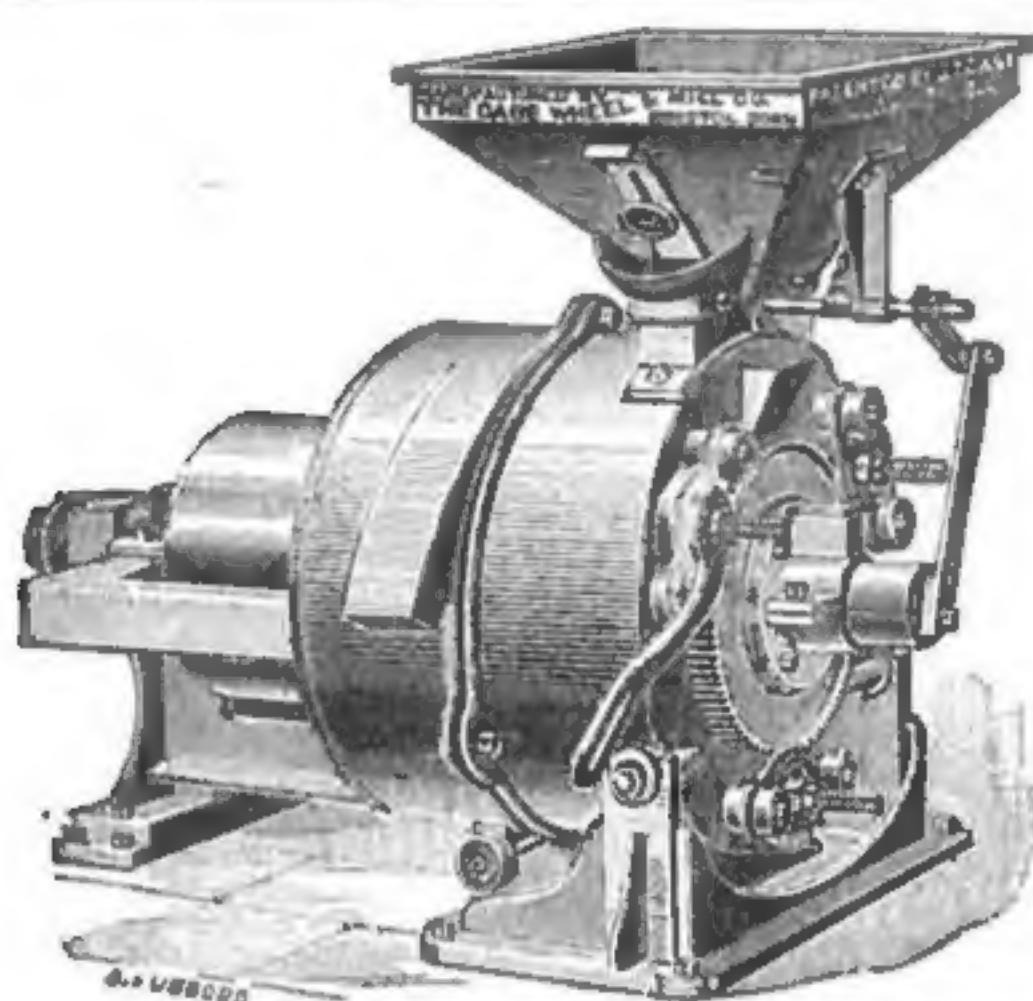
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXI. No. 13.

BUFFALO, N. Y., NOVEMBER 25, 1889.

\$1.50 PER YEAR.



VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS.

(J. T. CASE'S PATENT.)

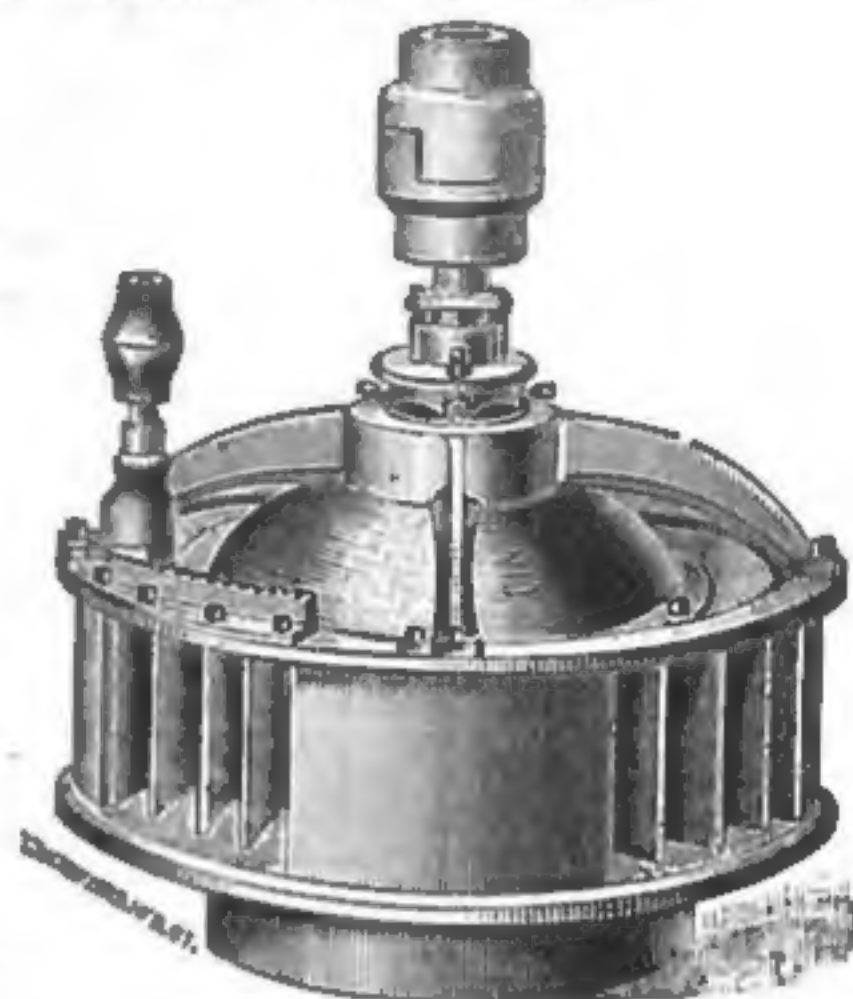
FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.
 "Superior to any mill in use."—Geo. WESTON, Bristol, Conn.
 "The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.
 "We take pleasure in recommending it."—GARLAND LINCOLN & Co., Worcester, Mass.

SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

The Improved National Turbine Water Wheel

The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.



The Case Wheel & Mill Co., Bristol, Conn.

THE SUCCESS

BOLTER AND DRESSER

THE J.B. ALLFREE

TWO-REEL SCALPER

WE BUILD

FLOUR MILLS, CORN MILLS

AND

HOMINY MILLS

KEYSTONE

THE J.B. ALLFREE SEIVE SCALPER

WE FURNISH

EITHER THE

SHORT, MEDIUM

OR

LONG SYSTEM

THE ALLFREE

CENTRIFUGAL REEL

THE SUCCESS

CORN MEAL BOLT

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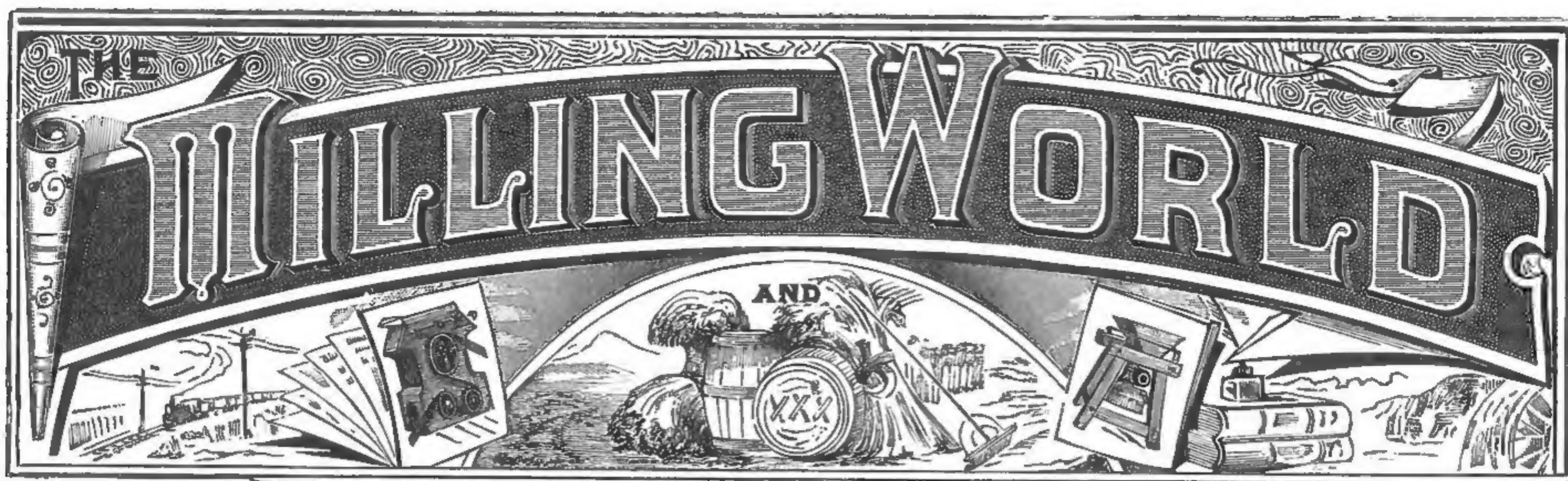
CASE.

CASE MFG. CO., COLUMBUS, O.
GENTLEMEN: If we were to build a hundred mills we
would not permit any other than the "CASE" roll to
enter them. They are the best roll on earth.
Yours truly,

W. C. MANSFIELD & CO.

W. C. MANSFIELD & CO.,
MERCHANT MILLERS,
CLEVELAND, TENN., AUG. 29, 1889.

CASE.



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ADVERSE decisions in the courts, indignant resentment at threatening letters, continual exposures of misrepresentations and unanimous hostility among millers and milling machinery makers appear to be the only crop reaped from the Consolidated Roller Mill Company's first sowing. The net results of the crop certainly do not, at this date, promise to pay the Consolidated managers for their outlay. Gentlemen, have you forgotten the antique toothed instrument concerning the sowing of winds and the reaping of whirlwinds?

ACCORDING to reports sent out from Minneapolis, Canada is to have a "Minneapolis" of her own at Kakabikka Falls, in Northwestern Ontario, near Port Arthur. Yankee capital is to utilize the falls and build enormous flouring-mills, "equal to those of Minneapolis." It reads well, but look at some of the icy verities. Mills equal to those at Minneapolis ought to grind about 11,000,000 barrels of flour a year. Where will the Kakabikka mills secure the necessary 55,000,000 bushels of wheat? Canada consumes about 5,000,000 barrels of flour a year. What will become of the 6,000,000-barrel Kakabikka surplus and of all the output of the present mills in Canada? If Kakabikka tries to export its surplus, will not the Canadian Pacific Railway prevent, as they now prevent, successful exportation? Kakabikka may possess enormous potentialities, but it is well to see them materialize before enumerating them.

THE Vienna Seed Congress several months ago estimated the Russian wheat crop to be 128,000,000 bushels below that of 1888. The latest European estimates place the Russian deficiency at 91,000,000 bushels for 1889 in comparison with 1888. This looks like a great disaster to the Russian wheat-growers, but it must not be forgotten that Russia this year has a crop of 207,000,000 bushels, despite the shortage of 91,000,000 bushels under last year's crop, and that the Russian wheat crop has averaged only 226,000,000 bushels for seven years past. Therefore, while the 1889 crop is 91,000,000 bushels below that of 1888, it is still only 19,000,000 bushels below the average crops for the years extending from 1888 back to 1880. The importance of the Russian shortage to the American wheat-growers and millers lies in the point that it means a smaller exportable surplus from Russia. Besides the wheat shortage in Russia this year, account must be taken of the shortage of 95,000,000 bushels in the rye crop, which still further reduces the Russian export capacity.

OCTOBER breadstuff exportations revealed no important change in the situation. The barley exports were worth \$127,827, against \$415,089 in October last year. The corn exports were 6,194,238 bushels, worth \$2,608,710, against 4,102,579 bushels, worth \$2,198,385. The corn-meal exports were \$86,139, against \$84,960. The oats exports were \$59,384, against \$19,108. The oatmeal exports were \$174,304, against \$18,238. The rye exports were \$41,067, against \$13,824. The wheat grain exports were 4,081,454 bushels, worth \$3,429,594, against 4,500,106 bushels, worth \$4,166,542. The wheat flour exports were 1,068,536 barrels, worth \$5,032,544, against 944,545 barrels, worth \$4,788,794. For the four months ended

October 31 the wheat grain exports footed 18,124,205 bushels, worth \$15,276,605, against 21,615,029 bushels, worth \$19,612,537 last year. For the four months ended October 31 the wheat flour exports footed 3,786,044 barrels, worth \$18,103,126, against 3,586,319 barrels, worth \$16,813,938 last year. The total breadstuff exports in October this year footed \$11,559,569, against \$11,704,940; for the four months ended October 31 this year \$44,594,090, against \$44,474,287 last year; for the ten months ended October 31 this year \$101,823,799, against \$94,966,233 last year. The beef, hog and dairy products exported during October amounted to \$10,107,805, against \$6,611,706 for the same month last year, and for the ten months ended October 31, this year, the total was \$95,754,000, against \$70,855,540 for the corresponding period last year. The total breadstuff, hog, beef and dairy exportations for ten months ended October 31, 1889, footed \$197,577,799, against \$165,821,773 for the corresponding months in 1888, a gain of \$31,756,026.

AN esteemed agricultural cotemporary refers to THE MILLING WORLD as "that consistent friend of monopolies." We do not know what the reference means, but presumably it is something terrible. We have always maintained that legislation is not needed to squelch trusts, that the trusts contain the seeds of their own dissolution, and that the best way to manage them is to let them alone. Time is proving the justice of our views. The cottonseed-oil trust is in the throes of dissolution. The sugar trust is calling opposition to its ruin. Every real trust, that is, every mere manipulation of produce, is failing. Our cotemporary has only to quote us correctly to prove that THE MILLING WORLD has for years been steadfastly opposed to all forms of combination that threaten individual or collective interests. Because our cotemporary's remedies do not always resemble our own is hardly an equitable reason for our cotemporary to accuse us of denying the existence of the disease. The movements of farmers are no more free from the penalty of comment and criticism than are the movements of any other class of producers. The farmers have just as much "right" to combine and put up the prices of farm produce, if they can, as the coal, or oil, or sugar, or iron, or lumber men have to combine and put up the prices of their produce, if they can. If it is "trust" in all cases. Our cotemporary should preserve an equal temper, as well as a perspicacious mind. It does not look wholly sane to accuse us in one breath of being a "consistent friend of monopolies," and to denounce us in the next breath because we do not admire the latest and most abominable of all trusts. Our position is distinctly and succinctly this: "All trusts are abominable." Let our cotemporaries get an air-tight cinch on our simple and easily understood platform, and they will no longer labor under the delusion that we need castigation or deserve misrepresentation. Now, Mr. "Orange County Farmer" Man, don't be unladylike. If you wish to join the tail-end of the trust procession just as the trust, individually and aggregatively, is meandering into the mullagatawny, do so, but don't shy bricks at us for denouncing your particular trust with all other trusts.

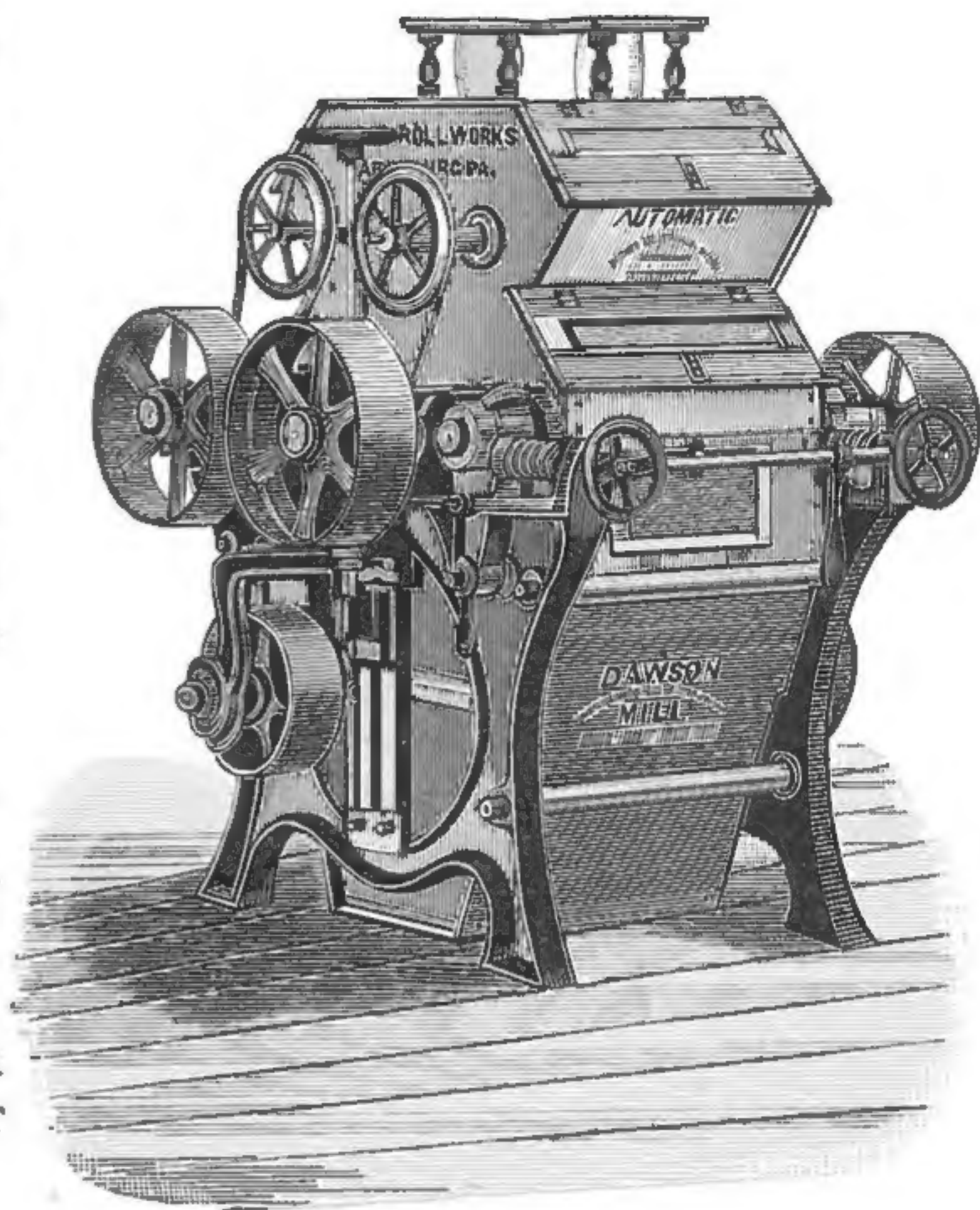
Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

We have a large plant to Re-grind and Re-Corrugate Rolls.

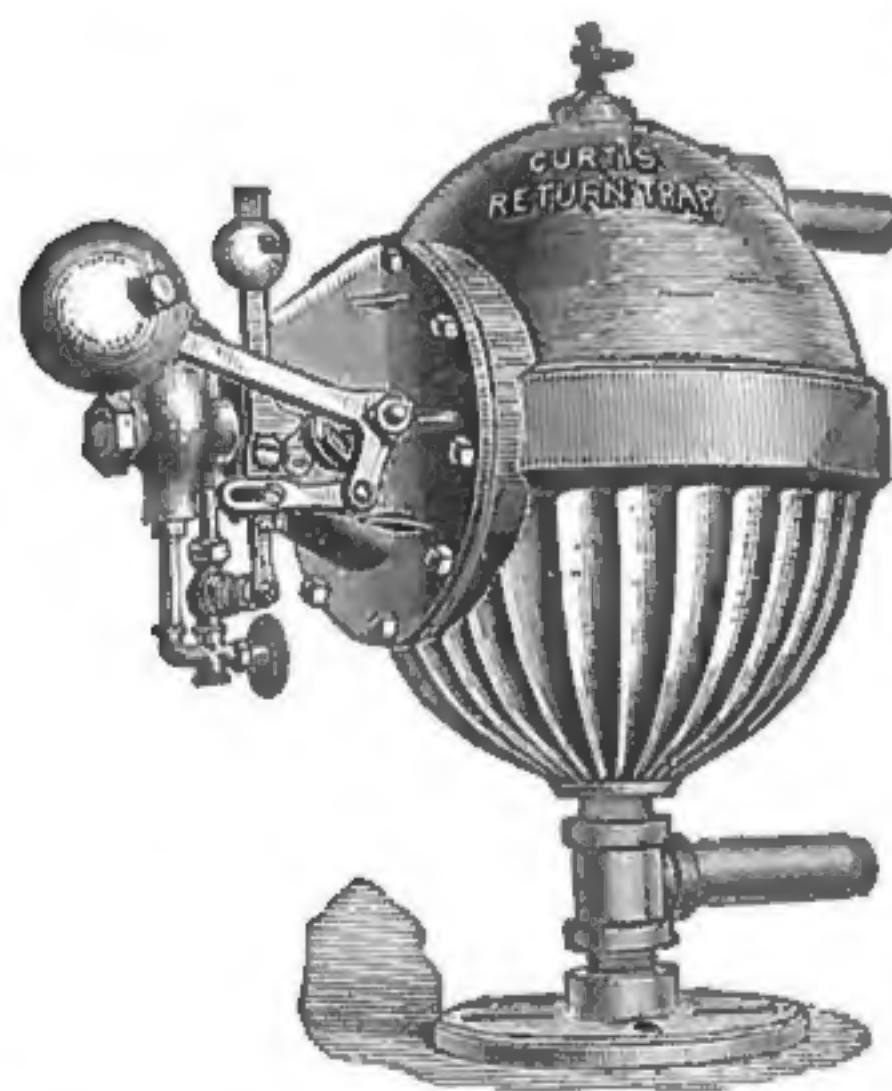
Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT THEMSELVES IN CORRESPONDENCE WITH US.



FOR PRICE LISTS AND CIRCULARS, ADDRESS,

Dawson Roll Works, Harrisburg, Pa.



THE CURTIS

PATENT RETURN STEAM TRAP.

IT is noiseless, positive, rapid, will return all condensation back into the boiler, and works equally well in connection with reduced pressure or exhaust steam, also when the return is below the water line of the boiler.

THE CURTIS REGULATOR COMPANY,
NO. 74 BEVERLY ST., BOSTON, MASS.

GENERAL AGENCIES.

New York, 109 Liberty st. Minneapolis, 210 S. Third st.
Philadelphia, 2035 N. Front st. Chicago, 218 Lake st.

L. L. WHITLOCK,
Advertising Agent

FOR MANUFACTURERS.

TRADE JOURNALS A SPECIALTY.

P. O. DRAWER 5323. Boston, Mass.

As Agent for Advertisers instead of Papers, I obtain the Best Rates Possible for my Customers.

The Canton Cabinet Filing Case Company, Canton, Ohio.

MANUFACTURERS OF

The New Buckeye Document Case & Letter File; Also All Kinds Office Furniture



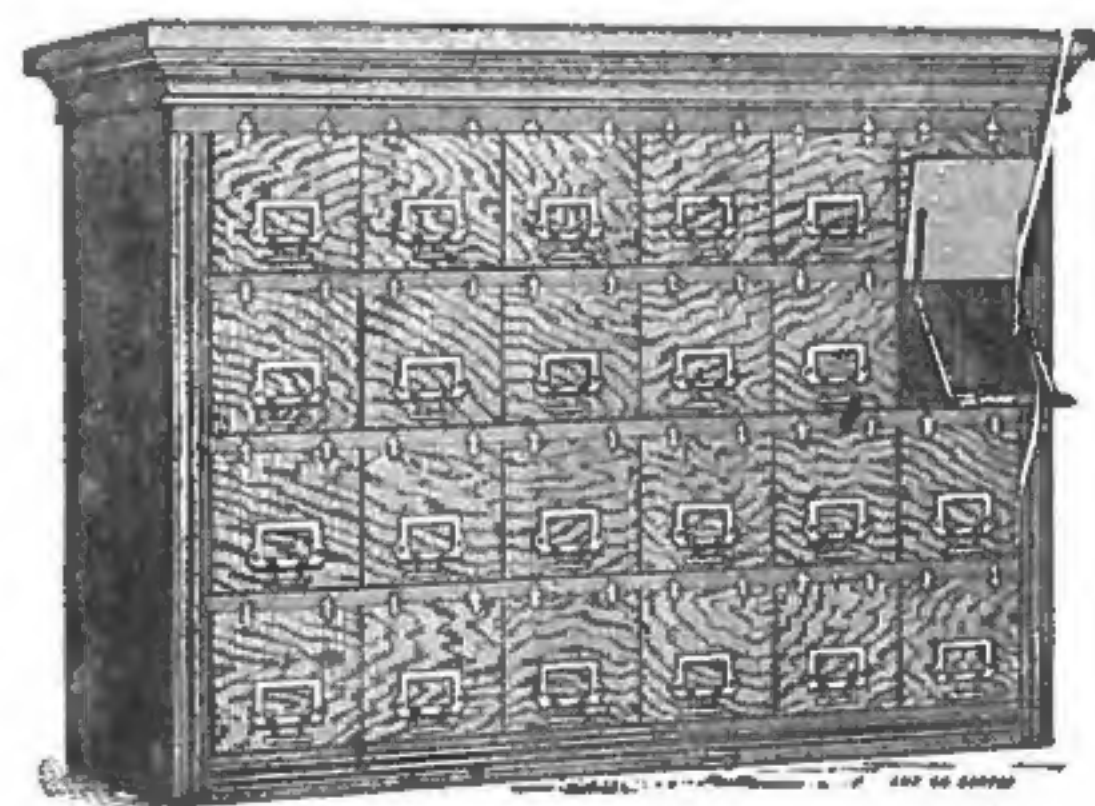
NO. 8.

NO. 8 Represents one side of one of our Revolving Cabinet Letter Files and Document Cases Combined. It contains 30 Document Drawers and 8 Letter File Drawers. In filing letters we use first VOWEL of name on front of drawer, and LETTER FOLLOWING first VOWEL on Index Sheet within drawer. We also make more exhaustive systems which contain from 8 to 100 or more Filing Drawers.

NO. 1 Represents one of our small Document Cabinets, for use on desks or brackets. Action of drawer can be seen in the cut. When front is raised inner drawer comes forward, exposing contents of drawer for inspection.

Our Cabinet Files are Conceded to be the Most Convenient of Any in the Market. They are Compact, Simple, Complete, Durable and Ornamental.

SEND FOR PRICE LIST AND CATALOGUE.



NO. 1.



PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.

McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS McFAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in un-registered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

WANTED.

Situation wanted by a Miller of 9 years' experience, 24 years of age, of steady habits and willing to work. Address, H. care of The Milling World, Buffalo, N. Y.

WANTED.

Western New York, Ohio and Pennsylvania mills in want of a temperate miller, with 20 years experience, should write to the undersigned, who is now running a first class mill, but would like to make a change this fall. Address, W., care of THE MILLING WORLD. 56

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office, 10 cents must be added to pay postage.

FOR SALE.

Merchant and grist mill. The best water-power in Ohio. Situated five miles from Mentor, Ohio. For particulars enquire of C. S. JOHNSON, West Mentor, O. 1216

SITUATION WANTED.

As miller, by an active young man, used to rolls and stones. Strong, willing and not afraid to work. Best of references. Address 'E. N.," 109 East Eagle street, Buffalo, N. Y. 811

FOR SALE.

Several good second-hand and new turbines of various styles. Second-hand price list and descriptive matter and prices of our new machines sent free. Every one interested in the shortest route to successful milling on rolls or in grinding corn and feed with the least expense of power, should address us before buying.

FLENNIKEN TURBINE CO.,
Dubuque, Iowa.

8tf

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.

One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.

One 14-Inch Vertical Feed Mill; best make, new, a bargain.

One No. 6 Dustless Separator; new, a bargain.

One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.

Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.

Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new.

One No. 2 Purifier. New. Best make. A bargain.

For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

M-I-L-L-E-R-S

Wanting Bolting Cloths should write for discounts on same before purchasing elsewhere to

SAMUEL CAREY
17 Broadway New York.

FOR RENT.

Clinton Mills, at Black Rock, Buffalo, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 311 Main Street, Buffalo, N. Y. 6tf

FOR SALE.

Full roller mill, 100-bl. steam power; also, a water power buhr mill, dwelling and ten acres of land. Prices low on either and terms easy. Address, J. R. ENGLISH, Piketon, Ohio. 10

WANTED.

A miller who can purchase an interest. Business rapidly increasing. Must enlarge mill and add machinery. Only mill in this, Gray's Harbor, region. Good water-power. Address, REV. HIRAM F. WHITE, Elma, Chehalis County, Washington Territory. 710

OUR readers will note the fact that the Avery Stamping Co., of Cleveland, Ohio, have opened an office in the city of New York, N. Y., at 51 Cliff street, in charge of Messrs. Hall and Near, agents. Their advertisement announces the change in full.

CANADIAN millers are still trying to induce the Canadian authorities to equalize the import duties on wheat grain and wheat flour, so that Canadian milling may have a fair chance. Meetings are to be held during the winter in various milling districts, and a determined effort will be made to secure for millers the same protection that is enjoyed by other citizens and producers of Canada.

SEVERAL of our esteemed English cotemporaries regularly refer to Canada as "a great and most important competitor with the United States in wheat-growing." These same far-away cotemporaries do not seem to hear the news that Canada is importing both wheat grain and flour from the United States in considerable quantities. Probably they would not see the force of the fact, even if they took the trouble to learn it. Canada can grow some very fine wheat in very favorable seasons, but the seasons of 1889 and 1888 were not very favorable ones, and Canada is very short of fine milling wheat. The fine Canadian crop of 1887, an exceptionally fine one, is made to cover the failures of some seasons preceding and of the two seasons succeeding that boom year, and what is gained by the misrepresentation?

BRITISH journals, milling, financial and others devoted to special interests, evidently are not pleased with the outflow of British capital to the United States. Their comments are various. One suggests that the northwestern elevators and flouring-mills would never have been sold to British capitalists unless they had ceased to be greatly profitable possessions. Another suggests that the American owners have got rid of their properties at magnificent prices, and that they are now free to locate in better situations and start new plants in the same lines, at less first cost, and with infinitely better shipping facilities. A third suggests that the British owners are so unfamiliar with American business methods that they will have no show for retaining a fair proportion of business, in case the men whose plants they have bought go into business at other places in the same line. A fourth flatly charges that the whole scheme of large sales is the work of "promoters," who, in order to secure large "cash-down" commissions, have stretched every point to "rope in" the British capitalists. The comments generally seem to imply that, while the British purchasers may have an advantage on the English side of the water in effecting sales of flour, by reason of their accurate knowledge of English needs and business methods, they are still at a disadvantage on the American side, and that their large investments are quite as likely to be unprofitable as they are to be profitable and satisfactory. Time will tell. Meanwhile, our British cotemporaries should try to keep cool. It is probable that each of the theories of the sales advanced has in it a foundation of truth, and that all the reasons set forth really combined to bring about the sales of the mills and elevators. Prophecy is unsafe, generally, but there is a fair chance that the worst predictions of the English critics and grumblers will materialize in this instance. The British purchasers can make money out of their new possessions in the Northwest, but they must at once familiarize themselves with all the details of the business.

THE STRIKE FEVER.

A. B. SALOM.

ACCORDING to the loose generalizations of thoughtless thinkers, of misleading leaders, of ignorant wiseacres, of riotous peace-makers, of lawless law-makers and of frenzied reformers-in-general in the United States, this is the one country in which the strike flourishes and in which it is called "the only weapon labor can use to force capital to terms." This generalization is seen in all the publications that claim to be devoted to labor. It is heard in all the harangues of all the orators who claim to speak for labor. It is the chief argument of that picturesque character, the "walking delegate," who is mysteriously empowered and authorized to go about the country, traveling in first-class style, stopping at first-class hotels, dressing in first-class clothes, drawing a first-class salary out of the "poor working-man," and thrusting himself into manufacturing establishments, ordering the proprietors to discharge this man and forbidding them to employ that one, and using his arbitrary power to create disturbances and precipitate conflicts between employers and employed.

Workingmen may well pause to ask how much truth and how much falsehood may be contained in the generalization that strikes are the peculiar product of the labor situation in the United States, and that the strike is labor's only potent weapon. Evidently the first part of the generalization is grossly misleading. The strike is not peculiar to this country. There has never been, there is not now, a country on earth, under any form of government, autocratic, monarchical or democratic, where labor is an important factor and where institutions possess any degree of stability, in which there is not, or has not been, serious conflict between the employing element commonly called "capital" and the producing element commonly called "labor." The American laborer should not accept the statement that the peculiar social and fiscal systems of this country produce strikes, or the necessity of strikes, because it is not a true statement, and because his ignorant belief and acceptance of the statement would lead him into a state of discontent not justified by the situation. Instead of the strike being an American institution, it may be found flourishing everywhere. The past few months have seen strikes in Great Britain, Germany and other European countries, so sinister in aspect and so disastrous in effect that governmental power was needed to prevent chaos.

Equally false is the second part of the generalization. The strike has not proved itself the potent weapon of labor in conflict with capital. It is a weapon, to be sure, powerful, dangerous, ominous, but it has in most cases proved, in the hands of labor, a weapon, not of successful attack, resistance or defense, but a weapon of self-injury, of suicide. The laborer, who goes out from a meeting frenzied by the insane harangue of one of the average high-priced, loud-mouthed mountebanks who earn a living by robbing laborers, believing that he and his fellow-laborers possess in the strike an instrument capable of forcing capital to any terms, at any time, should take the trouble to look into the history and the achievements of strikes, especially of the strikes of the past twenty years, in the United States and Europe. That history, full of failures and losses, will convince him that for every dollar gained by the strikers, a thousand dollars were lost, and that for every point, concession or privilege gained, the strikers paid too dearly to consider the gain an equivalent for the cost. Notwithstanding the insane assertions of the "reverend" quacks and the "mechanic" mountebanks who are receiving splendid remuneration for misleading laboring men, the strike has always been and will always be a losing instrumentality for labor to employ.

The strike fever, like a fever in the body, moves in a regular way. It has its periods of inception, increase, delirium, exhaustion and either death or recovery. Like the bodily fever, it is an indication of unwholesome or unnatural conditions, and it can never be cured or helped by increasing the unwholesomeness or unnaturalness of the conditions. The physician, who would advise a man with a broken arm to exercise the arm before the bone had knit, would be at

once dubbed a fool by every sane man, and yet these labor physicians, the self-satisfied, all-wise, all-sufficient agitators, advise quite as silly a course of treatment in the case of labor troubles. They ignore every thing that is reasonable or sane. They advise every thing unreasonable or insane. With their pet weapon, the strike, they associate arson, riot, chaos, murder, anarchy and every other desperate form of criminality. They cry that they wish "heroic treatment," and they simply show that their only idea of treatment is unbridled license and wanton criminal excess.

The malarial victim who would move into a malarial swamp to cure his ague, the drunkard who would imbibe more and more alcohol to drown the thirst increased by the larger potations, and the opium-eater who would eat more and more of the fatal poison to destroy his appetite for it, are not more unreasonable than the men who, under the pretense or the hallucination that they will thereby help themselves as laborers, invite the greater ills of idleness, destitution and starvation in the vain hope of removing the lesser evils of unsatisfactory wages or conditions. The strike fever is mainly folly. The recent great trouble in London shows that fact. A slight improvement in business, a hardly perceptible reaction from the starvation point in wages, the supposed full employment of labor in England, seemed to encourage the strikers. The fever was at once acute. Thousands upon thousands "went out." The great metropolis was paralyzed. The aggregate loss to the community was millions. The aggregate gain to the individual strikers was and is practically nothing in pounds, shillings and pence, while their loss in public sympathy can not be regained in a score of years. Out of it all one valuable lesson comes to the laborer: The strike is a suicidal instrument for labor to use against capital.

MILLING PATENTS.

Among the patents granted Tuesday, November 19, 1889, are the following:

Henry W. Avery, Cleveland, O., No. 415,236, an elevator-bucket.

James B. Kehlor, St. Louis, Mo., No. 415,275, a wheat-scourer.

Harvey W. Gipple, Audubon, Ia., No. 415,292, a grain-measure.

Daniel G. Reitz, Berlin, Pa., No. 415,368, a dust-collector.

Hans Birkholz, Milwaukee, Wis., No. 415,604, a spiral conveyor.

James E. Welch, Petersburg, Ill., No. 415,688, a bolting-reel.

A CHESTNUT FROM ANTIQUITY.

CORN IN EGYPT.

When famine swept the country, and the fabled Horn Of Plenty was exhausted, and there wasn't any corn, Jacob called his sons together and told the eldest boy That in far distant Egypt, not Egypt, Illinois, But that other ancient country, where the ox Nile water drinks, Celebrated for its mummies, pyramids and Sphinx, In Egypt there was plenty, they must the journey make, To purchase the material for their daily johnny-cake. "And without corn," said Benjamin in a voice as soft as silk, "How can we our appetites indulge in mush and milk?" "Without it, too," another cried, "and dad will miss his horn," And Jacob beamed upon him and acknowledged the corn.

"Gris," in Texas Siftings.

A SUCCESSFUL MINISTERIAL MILLER.

Says the Liverpool, England, "Post": Patrick Egan, the proscribed Irish Nationalist, who is United States Minister to Chili, has, at the outset of his new career, made a great hit. Mr. Egan, while he was still in Ireland, was engaged in business as a miller. When he fled to the United States he went into the milling business and gradually created a large and lucrative connection. On his arrival in Chili he discovered that the milling trade was in a lamentable condition. Only the most primitive machinery is used, and the work is badly done by costly processes. His excellency, being a practical man, immediately placed himself in communication with some of the principal millers, talked to

them quietly on the subjects, described the sort of thing that was being done in the United States, with the consequence that arrangements have been made for the introduction into Chili of American machinery and workmen, who will shortly revolutionize the whole business of milling. According to the Chilian papers, Mr. Egan's interposition is greatly appreciated, and he has at once by this novel procedure established a strong position in popular favor.

POINTS IN MILLING.

Look abroad and see how the world does, if you would know how you are doing yourself. The advice is old, but in the case of millers it is still valuable. American millers are quite sure that they are advancing with the most advanced, and they doubtless are. Other millers in other lands think they are themselves in the front rank. It is the custom in some quarters to give German millers second or third place, but it is not always wholly just to do so. German milling is advanced milling to-day, despite British criticisms and Hungarian disparagement, as competent critics testify. For instance, at a recent meeting of the Berlin Chamber of Commerce an interesting paper on the progress of milling in Germany was read by Herr Joseph Van Den Wyngaert, the well-known President of the Association of German Millers. In his paper he remarked that in reporting upon the progress of milling he found himself in a somewhat delicate position, for although as the reader of a paper it would naturally please him to talk about plenty of new inventions, yet as President of the Association of German Millers he had to rejoice that this was far from being the case. On the contrary, he was glad to say that the past two years had been for millers a period of comparative calm; they had not had the evil experiences of former years when new machinery was no sooner acquired than it had to be thrown out of the mill in order to make room for new inventions which had been brought out in some foreign land or another. But, on the other hand, he had the pleasure of noting that the majority of such novelties as had appeared had sprung from German ground, in which expression he had included for the moment Austria-Hungary, a country with which, so far as milling was concerned, Germany might be said to walk hand in hand, for the latter land had adopted the milling methods of the former, and now German millers were asking themselves whether they were to stop where the Austrians stopped or to go further and to try to pass them.

THE progress effected by Germany is undoubtedly owing to its greatly increased consumption of foreign grain. There is no questioning the fact that Hungary is indebted for the advance it has made and for the position which it still holds to its magnificent raw material, the product of its own fields. Of course he was referring more particularly to wheat. Rye flour was not required to produce the same fine patent brands which are taken from wheat. The wheat bread of these days has to satisfy the most exacting palate, and such bread can only be baked when there is flour to work upon ground from a rich, glutinous wheat. Now the Hungarians possessing such wheat were enabled to make a great step in advance, but that would have been impossible unless they had adopted their peculiar method of milling, a type perfectly distinct from that which then prevailed in countries like France and Belgium, that in other respects were among the manufacturers of the best flours. But then in those lands millers worked on soft wheats, which were easy to disintegrate, of which the husk readily peeled away, so that the kernel of the berry was quickly laid bare, but this was impossible in the case of the hard wheats of Hungary, with their tough husks and hard kernels. Therefore another method had to be found for breaking up the berry.

HERR Van Den Wyngaert called attention to the fact that about 30 years ago he had opened the first grist mill at Stettin, and there he soon attempted to make the same kind

of flour as in Hungary, but under the conditions prevalent in those days such a task was impossible. Now matters are very different. The German millers have not been asleep and are now able to make just as good flour as is manufactured in the best Hungarian mills, always provided that they have raw material of equal quality to deal with. Such grain they are now receiving, not merely from Hungary, but from South Russia as well, and from even more distant lands. No doubt the German milling trade has been helped to its present high level by the improved taste in the matter of bread of their countrymen; it was inevitable that every complication of a process of manufacture should entail an enhanced cost of production, especially in the earlier stages of such economic revolutions, but although, as experience was gained, working expenses tended to reach a level, yet, of course, it is the consumer who has to make good any deficit. The marked increase of material prosperity in Germany during these latter times has caused a demand for high-class bread, and the baking trade of Berlin has now reached a level which was formerly only attained by Karlsbad and Vienna. He was bound to admit that even now Hungarian flour makes its way to Berlin in spite of the high duty, and is used (sometimes mixed with German flour) for breakfast rolls. But that is due not so much to any failing on the part of the millers as to the ingrained conservatism of the bakers, who, if they would only be at the trouble to look about them, would find that just as good flour is made in their own land. He referred to the essential difference between the Hungarian and the old German system of milling. The aim of the Hungarian miller is not to reduce the grain to flour, but to middlings, and when this product has been entirely freed from bran, then to convert it into flour. In the German and French systems the grain was reduced into flour as quickly as possible, and any middlings that happened to be produced in that operation were graded, purified and ground into fine flour. But all that is changed, and nowadays, even when treating soft, mellow German wheats, their only aim is to make middlings. The softer and the more friable the berry, the larger will be the proportion of flour, but German millers have now advanced so far that even the native wheat is subjected to six breaks before any reduction of the middlings is attempted. It is characteristic of the middlings that mingled with them there should be branny particles of larger or smaller size. Now it so happens that the bran has about the same specific gravity as the middlings with which it is mixed. The separation of these elements is the great problem before the milling engineers, and it appeared to him that they have acquitted themselves very well of this task.

HERR Van Den Wyngaert pinned his faith on the Haggemacher "Plansichter," asserting that it has the great merit of economizing an immense amount of room, in fact he fully believes that one "Plansichter" will do the work of three reels. They might see on the wall the plan of a mill, actually existing at Alfeld, which had a daily capacity for grinding 300 to 350 centners (the centner is 220.46 lbs.) of wheat, and 400 to 450 of rye, which is provided with these machines. When they compared that plan with the diagram of an ordinary mill provided with reels, the difference would be apparent. But besides this advantage the "Plansichter" has also the great virtue of mingling with the flour the finer middlings particles without any detriment to the color of the flour. That is the great problem of modern milling. That this is no idle claim for the "Plansichter" would be clear from the following test. From one and the same roller-mill the material was divided into two equal parts and treated in the one case by an ordinary dressing-machine, and in the other by the "Plansichter," with the result that, while in the former case the yield of flour did not exceed 40 to 42 per cent., in the latter there was obtained 60 to 65 per cent. of flour, with a color fully equal to that of the product yielded by the dressing-machine. The Haggemacher rotary sieve is the greatest invention of the day, according to Mr. Van Den Wyngaert, but, at the same time it might be interesting to know what particular dressing-machines

were brought into competition with the "Plansichter" in this case.

TAKING up another topic, Herr Van Den Wyngaert remarked that he had in that place more than once spoken of the problem of grain decortication. That question has been the sea-serpent of the last forty or fifty years, but with the progress of time there seemed to have been made a step forward. In 1846 a decorticator by Buchholz had come up in Berlin, and he (the lecturer) had seen it again in Paris in 1854. Later on they had seen the machines of Henkel, Seck and many others, but in all these decorticators the leading idea was the wetting of the berry, so as to soften the husk and cause it to strip off readily. But that was an inadmissible process, because it meant that grain so treated would yield no flour fit for storing. It did not matter how short a time the berry was exposed to the action of water, it would always be long enough to ruin the keeping qualities of the flour. Therefore, attempts had been made to decorticate by dry processes. Nothing was more natural than to make use of pearling-stones. He had tried that himself, but with no success, as the waste was great, and nothing striking was effected. But still some persons stuck to the idea of decortication, and fourteen to fifteen years ago an Austrian miller, named Till, announced that he had succeeded in decorticating grain. His plan was to work with emery discs of conical shape, running on an axis inside a casing, the inner walls of which were faced with emery, the idea being to rub off the husks between the emery surfaces. But the sum total of this operation was very small. The decorticating cost actually more than the grinding, especially in the case of rye, while the result was unsatisfactory. This was, above all, owing to the lack of a powerful air-current to blow away the detached particles of husk, so that the bran would in the end stain the peeled berries. Then another miller, a Mr. Wimmer, took up Till's idea, substituting for the disc-bearing shaft a large vertical cone of emery, which worked inside a case, also of emery, and providing the machine with a strong air-current. This apparatus worked well, but the cone was abandoned in favor of a vertical axis bearing several cylindrical discs, somewhat like the belt pulleys, one above the other. This spindle was surrounded by a mantle, and at the base was a perforated plate, through which the particles were blown. A machine of this pattern, constructed by the well-known firm of Messrs. Ganz & Co., of Budapest, was shown at the Milan Milling Exhibition, where, working on the hard wheats intended for the manufacture of macaroni, it did sufficiently well. But as much could not be said for its treatment of other kinds of grain. Messrs. Ganz had accordingly modified the machine, and in its latest shape it had certainly given the best results which he had as yet seen in decortication. He did not mean to say that the machine is by any manner of means perfect, but it has unquestionably brought German millers a long step forward, and it is actually at work in a few mills.

THE FUTURE OF AMERICAN WHEAT.

Statistician Dodge, of the Department of Agriculture, in a recent article on the outlook for wheat, begins with the declaration that it is a great mistake to assume that the wheat-growers of the United States dominate all markets and fix all prices. He says: "With short crops elsewhere, a large one here may not make an average world's product; then prices are high both here and there. With abundant yields in other countries and low returns here, more than an average product may exist, depressing prices. This would indicate that the remainder of the world holds the longer lever, which is a fact, as North and South America together produce only a fourth of the wheat grown in the world. These facts furnish a key to the fluctuation of prices." Mr. Dodge shows that for a period of ten years the average net imports of wheat and flour in European importing countries have been about 236,000,000 bushels, and the net exports of European exporting countries have been about 92,000,000 bushels, indicating that an average of 144,000,000 bushels annually have been drawn from other portions of the world.

The average imports of Great Britain and Ireland are stated to have been 133,000,000 bushels, so that, aside from these requirements, the European supply has been within 11,000,000 bushel of its necessities yearly. During a period of fifteen years the imports of Great Britain have averaged 51 per cent. from the United States, nearly 8 per cent. from British India, 13½ per cent. from Russia, 4 per cent. from Australasia, and 23½ per cent. from other countries. Among other things, Mr. Dodge says:

"Prices have been lower in Liverpool in recent years than for a previous century. Is it because of greater production? There is some increase in certain countries, but probably the more efficient factor in preventing fluctuations and high prices is the extension of transportation facilities; in number of lines and frequency of service, by which the fresh harvests in every month of the year are gathered into the holds of fast steamers and carried to Liverpool, which is the Rome to which all roads traversed by wheat transports lead very directly. Thus is an equilibrium in varying production of a series of years brought about. There is neither beginning nor ending of the wheat year nowadays. From July to July production may be relatively lean; from January to January comparatively fat; mix the two products in one bin, and plenty exists in moderation, and prices remain in some degree of uniformity. Northern and Southern Hemispheres, with winter in one, while summer ripens wheat in the other, add to the stores of the world's wheat in all seasons of the year. The high prices of former times have in large measure been the result of wars and preparation for war. Waste results, commerce is interfered with, and inflation follows. A long peace has made the world's stock of wheat go further, with quicker and more equitable distribution. This in part accounts for low prices, without reference to increase in wheat-growing. Some wheat-growers in the Northwest understand this and are said to be praying for European war.

"The wheat product of the world, so far as approximate statistics can fix it, usually falls between 2,100,000,000 and 2,200,000,000 of bushels. About one-tenth of this is so obscure and impact a quantity that commercial authorities leave it out of their calculation. It nevertheless exists and can be found, but not so promptly or quite so precisely as crops of some other countries. How is it distributed? If Europe is almost the only market for wheat, it is also the greatest producer, averaging 1,200,000,000 bushels in round numbers. The real average is rather more than this volume. North America, the United States, Canada and Mexico, produces over 500,000,000 more. India grows about half as much as North America. This leaves only about one-tenth for Australasia, Northern Africa, Western Asia and islands of the sea.

"Who are the buyers of wheat? Very little wheat is wanted outside of Europe. A very small quantity of flour may be sold in the West Indies, Brazil and elsewhere, with small chance to augment the trade. Europe is the only market worth considering. The inhabitants number 350,000,000 and use less than four bushels per head, of which less than half a bushel is imported. As the seed is equal to the amount obtained from foreign countries, the opportunity for unlimited wheat-growing would appear to be a poor one. From 1877 to 1886, inclusive, the countries of Europe imported from countries of other continents 144,000,000 bushel per annum, in the form of wheat and flour. A few unimportant districts not included in this enumeration export more than they import and could not swell this aggregate. Russia, Roumania and Austria-Hungary always have a surplus, which goes to other European nations. The commercial world, which looks only at the present, got quite excited over the idea that India would supplant America in the wheat trade, when those who knew anything of the conservatism and food economies of that oriental land were sure that their wheat surplus would be quite as liable to decrease as to increase; and already a marked decline in exportation has set in. But for the exceptionally good crops of recent years and the depreciation of silver in Great Britain, the currency that purchased the grain and passed as national currency in India, the exportation would have dwindled earlier.

"What of the prospects of wheat-growing in this country? It will always be a paying business for farmers, if properly managed and not extended beyond the requirements of home and foreign markets. The recent low prices have been produced by the growers themselves. In 1880, when there were nearly 36,000,000 acres, the country required but 24,000,000. One-third of the product was exported, 186,000,000 bushels, a much larger volume than went out previously, and about 50,000,000 bushels more than the average since. It is simply because it has not been wanted, since the recovery of Western Europe from the low yields of bad seasons prior to 1880. Our home consumption has increased nearly 70,000,000 bushels since that date, and in the next ten years will probably be enlarged by 85,000,000, while there is no prospect for half that increase in exportation. Our main reliance for the profits of wheat-growing is upon the American people."

JUDGE GRESHAM'S IMPORTANT DECISION.

Following is the full text of the recent decision of Judge Gresham in the roller-mill patent suits in the Indiana courts. It is an important decision by a judge of national reputation:

In the Circuit Court of the United States,
for the District of Indiana.

THE CONSOLIDATED ROLLER MILL COMPANY, ET AL.,

versus

THE RICHMOND CITY MILL WORKS.

In Chancery.
No. 8496.

"The above complainants brought suit on four patents in the Eastern District of Michigan against William A. Coombs, as the user of a roller-mill made by the defendant in this suit for the manufacture of flour. The answer attacked the validity of all the patents and denied the infringement. The complainants abandoned one of the patents at the hearing, the Court held two of them invalid and sustained the second, third, fourth and fifth claims of the other, the Gray patent, which consisted 'in a peculiar construction and arrangement of devices for adjusting the rolls vertically as well as horizontally, whereby any unevenness in the wear of the rolls or in their journals or bearings may be compensated for and the grinding or crushing surfaces kept exactly in line,' and also 'in the special devices for separating the rolls when not in action, and in other details.' The usual decree was entered against the defendant and the case was sent to a Master.

"The answer in the suit here sets up substantially the same defenses that were relied on in the Michigan case, which was defended by an association of five mill-furnishers, of which the defendant, the Richmond City Mill Works, was one. The motion for a provisional injunction is based in part upon the decree in the Michigan case, on the theory that there was privity between the defendant there and the defendant here. Prior to the hearing and commencement of the Michigan suit, Allis, the then owner of the Gray patent, sued Freeman for its infringement in the Western district of Wisconsin, and after a hearing in the court Judge Bunn held the patent invalid and dismissed the bill for want of equity, but gave no opinion. The complainant appealed and after doing so assigned the patent to the parties or some of them who became complainants in the Michigan suit, and whose counsel dismissed the appeal. Why the appeal was dismissed we do not know.

"In Gray's first application for a patent he claimed broadly the means for adjusting the roller bearings irrespective of the particular location of the supporting pivots, which were adjustable, and irrespective of other details of construction. The application was rejected by the Patent Office. Gray submitted to the decision and filed another application with claims limited to special devices for his adjustments, and the application with the claims thus limited was allowed. Judge Brown, who heard the Michigan case, did not hold Gray to the limitations imposed upon him by the Patent Office, but construed his claim broadly and somewhat as if the patent were a pioneer. Indeed, he interpreted the claims as if no limitations had been introduced into them by amendment to meet the requirements of the Patent Office.

"Certain foreign patents, properly or improperly, caused the Patent Office to reject Gray's original application. He submitted to the decision as stated above and amended his claims by limiting them to the 'special devices' by which he made his adjustments, and if he is held to these limitations and his claims are not expanded by construction, this suit must fail, and the appeal from the Michigan decree will be reversed. It is not necessary, however, for this Court at this time to express an opinion as to the correctness of the rulings of the learned Judge who entered the decree in the Michigan case, or the effect of that decree upon the defendant in this suit. The defendant is a manufacturer and the complainants are not, and if the Supreme Court should hold the Gray patent invalid and reverse the decree in the Michigan suit, this defendant might and probably would suffer irreparable injury, while if the decree of the Michigan Court is affirmed the complainants can recover full damages and profits for the use of their patented improvements.

"The defendant owns and operates an extensive establishment and has a large capital invested in the manufacture of roller-mills. It can not be said, upon the proofs before the Court, that the defendant has not been carrying on its business in good faith and in the belief that it was not trespassing upon the rights of others, and a sudden stoppage of its business might be ruinous to it. The chances are more than even that if the Court should now issue a provisional injunction as prayed for, it would result in serious injury to the defendant without benefit to the complainants. The motion for a provisional injunction will be denied when the defendant files an undertaking with security to be approved by the clerk of this Court for the payment of any decree that may be rendered in favor of the complainants on final hearing."

RODNEY MASON for Complainants.

PARKINSON & PARKINSON for Defendant.

OBITUARY.

MR. CHARLES H. WELLS, editor of *Dixie*, Atlanta, Ga., died at Saranac Lake, N. Y., November 20. Mr. Wells was 29 years old. He was a native of Milford, Pa., but has made his home in the South for the past five years. He was widely known in journalistic circles, having for years written for the *New York Tribune*, *Times*, *Sun*, *World* and *Herald*, and for the *Philadelphia Press* and *Times*. He filled important positions on the two last-named journals, but was compelled to abandon the work on account of impaired health. He became the editor of *Dixie* when that journal was founded in 1885, and by his enterprise, intelligence and experience he brought it to the extreme front among the industrial journals of the United States. He was a man of fine intellectual powers, good literary tastes and great executive ability, and a large family circle and a host of warm personal friends mourn his loss.

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THE HUMAN SOUL LOCATED AT LAST.—The soul, says Dr. A. H. Stevens, of Philadelphia, is located in the corpus callosum, a little spongy body situated at the base of the brain, which has defied the efforts of physicians in their endeavors to ascertain its uses in the human anatomy. "The corpus callosum," says the doctor, "is the seat of the imperishable mind and is the great reservoir and storehouse of electricity, which is abstracted from the blood in the arteries and conveyed through the nerves up the spinal cord to the corpus callosum."

GENERAL NOTES.

ACCORDING to naturalists, a scorpion will produce 65 young, a common fly will lay 144 eggs, a leech 150 and a spider 170. A hydrachna produces 600 eggs and a frog 1,100. A female moth will produce 1,100 eggs and a tortoise 1,000. A gall insect has laid 50,000 eggs, a shrimp 6,000, and 10,000 have been found in the ovary of an ascaris. One naturalist found over 12,000 eggs in a lobster and another over 21,000. An insect very similar to an ant (*Mutilla*) has produced 80,000 eggs in a single day, and Leuwenhoeck seems to compute 4,000,000 as the crab's share. Many fishes produce an incredible number of eggs. More than 36,000 have been counted in a herring, 38,000 in a smelt, 1,000,000 in a sole, 1,130,000 in a roach, 3,000,000 in a sturgeon, 342,000 in a carp, 383,000 in a tench, 546,000 in a mackerel, 992,000 in a perch, and 1,357,000 in a flounder. But of all the fishes hitherto discovered, the cod seems to be the most prolific. One naturalist computes that this fish produces more than 3,686,000 eggs, and another as many as 9,444,000. A rough calculation has shown that, were 1 per cent. of the eggs of the salmon to result in full-grown fish, and were they and their progeny to continue to increase in the same ratio, they would in about 60 years amount in bulk to many times the size of the earth. Nor is the salmon the most prolific of species. In a yellow perch weighing $3\frac{1}{2}$ ounces have been counted 9,943 eggs, and in a smelt ten inches and a half in length, 25,141. An interesting experiment was made in Sweden in 1761, by Charles F. Lund. He obtained from 50 female breams 3,100,000 young, from 100 female perch 3,215,000 young, and from 100 female mullets 4,000,000 young.

COTEMPORARY COMMENT.

It is curious to read cable dispatches forwarded by the "Central News," by "Reuter" and others that there is a famine in Dakota, North and South, by which 100,000 persons are said to be on the verge of starvation, while we have it on the authority of Mr. F. H. Haggerty, the United States Commissioner of Immigration, that the yield of wheat in North Dakota was 26,721,660 bushels and in South Dakota 17,287,432 bushels, a total of 44,009,092 bushels, against 40,500,000 bushels in 1888; while in the neighboring state of Minnesota the yield is put down at 45,498,205 bushels by Mr. Haggerty, against 27,881,000 bushels, according to the Agricultural Bureau, in 1888.—*London, England, "Millers' Gazette,"*

When these air-castles had been exhibited the convention (Interstate Wheat-Growers) adjourned, and never before at this season did the farmers of the Mississippi valley pour out their wheat more freely than they have done since the adjournment and never at relatively lower figures. The practical fact is that few among farmers have known or will ever know that any such convention was ever held, or if they knew, are in practicable condition to hold back their grain. They have machinery notes falling due, store bills due, mortgage coupons to meet, clothes, fuel and groceries to buy, and with all these things to look after there is no way for them but to sell their grain, unless the philan-

thropists advising them to hold back the grain provide for the millions of necessities while they are doing it. No such provisions have ever been made, and before the millennium none will ever be, but people will go on buying and selling.—*Minneapolis "Market Record."*

It is worthy of passing remark that Sir John Lawe's experience of growing wheat continuously on land in this country that has not been manured at all during 46 years should tally so exactly with the American official returns of yield in that country, Sir John's figure being $12\frac{1}{2}$ bushels per acre; the American average for the past 10 years 12 bushels per acre.—*Liverpool, England, "Corn Trade News."*

These wheat-growers are queer geniuses. They imagine that the price of wheat is kept down by some colossal conspiracy against the farmer. The fact is that so much wheat is produced that it is impossible to hold up the price on it.—*Chicago "American Miller."*

Shortages in grain cargoes arriving at Buffalo continue to occur. The scales at Buffalo must need repairing, or else those at Chicago, Duluth and other points on the western lakes do. Capt. J. W. Miller recently went to Buffalo in the interest of the Lake Superior Elevator Company of Duluth to look after the reported shortages on wheat cargoes from that city. The grain sent from Duluth and Chicago is weighed out by a state weighmaster, and the scales are frequently tested, so it seems more probable that the mistake occurs at Buffalo.—*Chicago "American Elevator."*

The first payment on the Munger-Wheeler system of grain elevators in this city was made yesterday afternoon by representatives of the English syndicate to whom an option was given several months ago. An opposition combine among the other elevator people is being talked about.—*Chicago "Daily Business," November 16.*

WHEAT TRADE WITH GREAT BRITAIN.

Abundant European crops and short American crops for one or two seasons have made some striking changes in the wheat grain and wheat flour trade of the United States with Great Britain. The magnitude of those changes may be accurately seen at a glance in the appended table, compiled from official sources, showing the importations of wheat grain and flour into Great Britain, with the sources of supply, during the first ten months of 1889, in comparison with 1888 and 1887:

	Ten months ended 31st October		
Wheat.	1889, cwts.	1888, cwts.	1887, cwts.
Russia	17,634,211	16,457,489	2,664,877
Germany.....	2,227,982	2,530,128	895,997
France.....	126,431	16,299	4,906
Turkey.....	573,608	75,744	1,949
Roumania....	1,610,417	778,396	150,577
Egypt.....	320,154	695,365	157,261
United States—Atlantic	3,902,243	6,181,145	19,352,747
—Pacific	10,123,896	7,511,607	8,049,738
Chili.....	572,953	1,339,174	1,936,116
British India.....	7,557,010	6,229,954	7,647,934
Australasia.....	1,386,321	1,639,982	1,267,330
North America—British	874,610	1,077,589	3,481,154
Sundries	1,106,949	2,093,722	1,174,607
Totals	48,017,785	46,626,597	46,784,393
Flour—			
Germany.....	1,015,520	659,156	429,178
France.....	67,192	78,034	68,026
Austrian Territories....	1,491,357	1,512,672	1,062,614
United States.....	7,678,763	11,344,388	12,531,660
North America—British	781,612	679,412	752,874
Sundries	332,435	339,035	113,331
Totals.....	11,366,879	14,612,697	14,957,683

The percentage of wheat grain and flour furnished by the United States shows a great decrease, standing as follows for the three years compared:

	1889.	1888.	1887.
Wheat grain.....	29.21 per cent.	29.37 per cent.	53.57 per cent.
Wheat flour.....	67.56 per cent.	77.64 per cent.	83.79 per cent.

The other breadstuffs imported into great Britain during the same periods are shown from the same sources to be as follows, the sources of supply being omitted:

	1889. cwts.	1888. cwts.	1887. cwts.
Barley.....	14,218,952	15,638,670	9,713,774
Oats.....	13,607,161	15,789,537	10,929,252
Peas.....	1,341,858	1,992,869	2,217,732
Beans.....	3,024,834	2,519,231	2,009,716
Maize.....	31,426,028	22,314,996	26,284,151
Maize-meal.....	16,788	13,826	4,703

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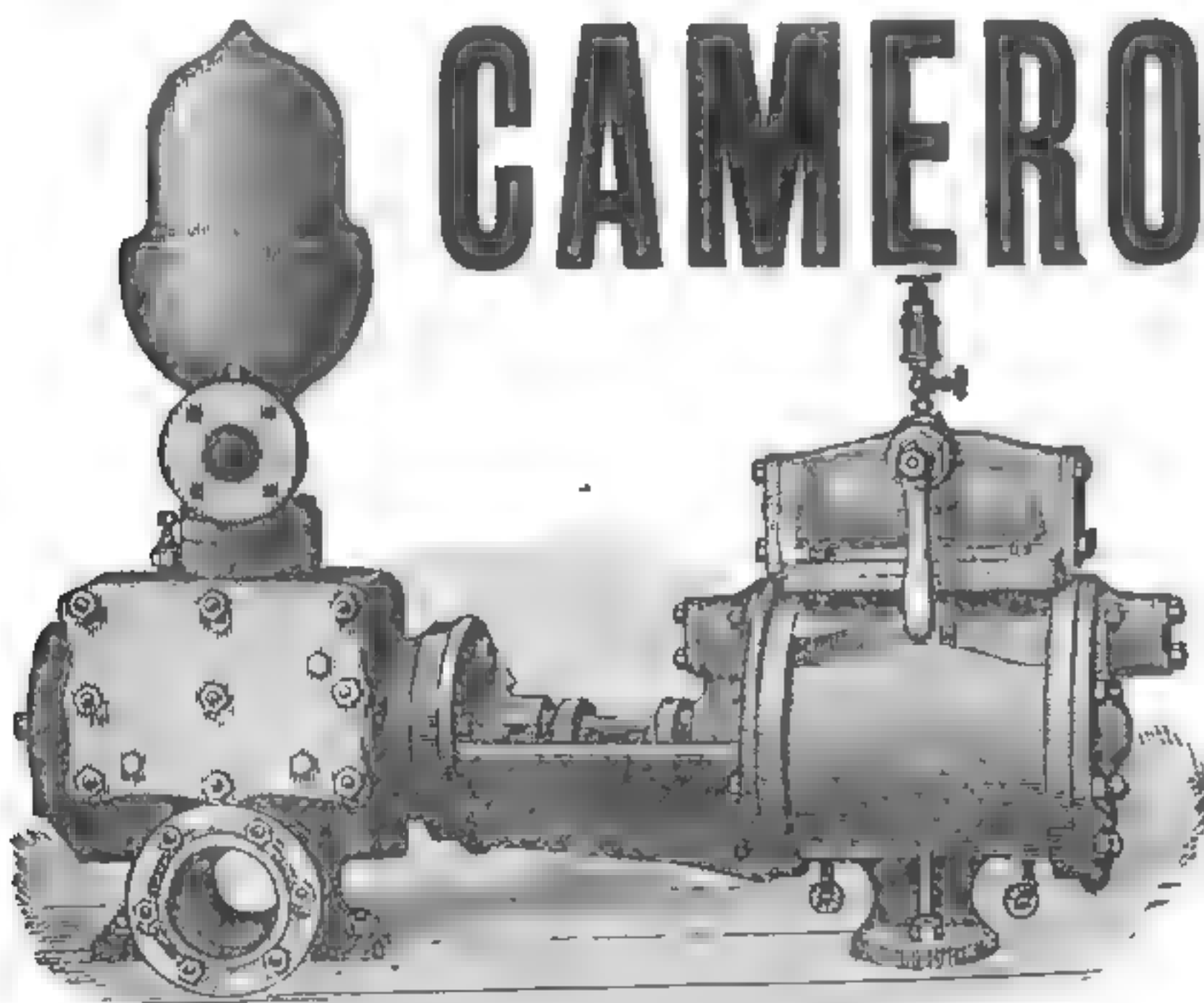
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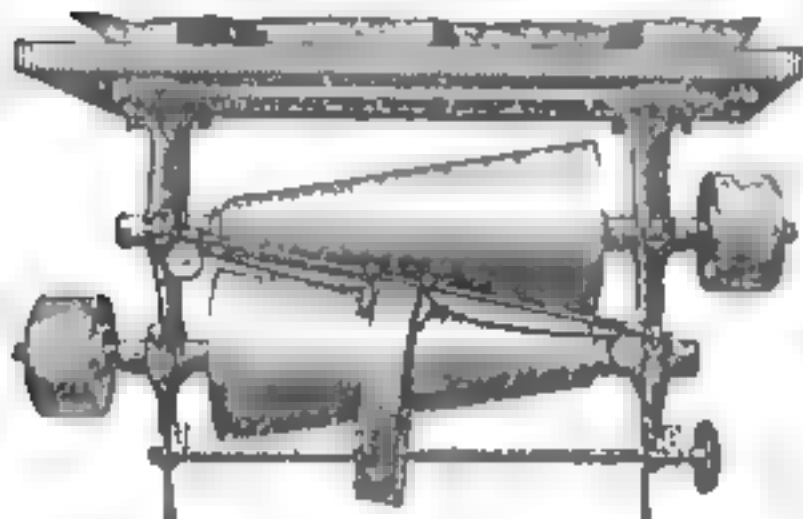
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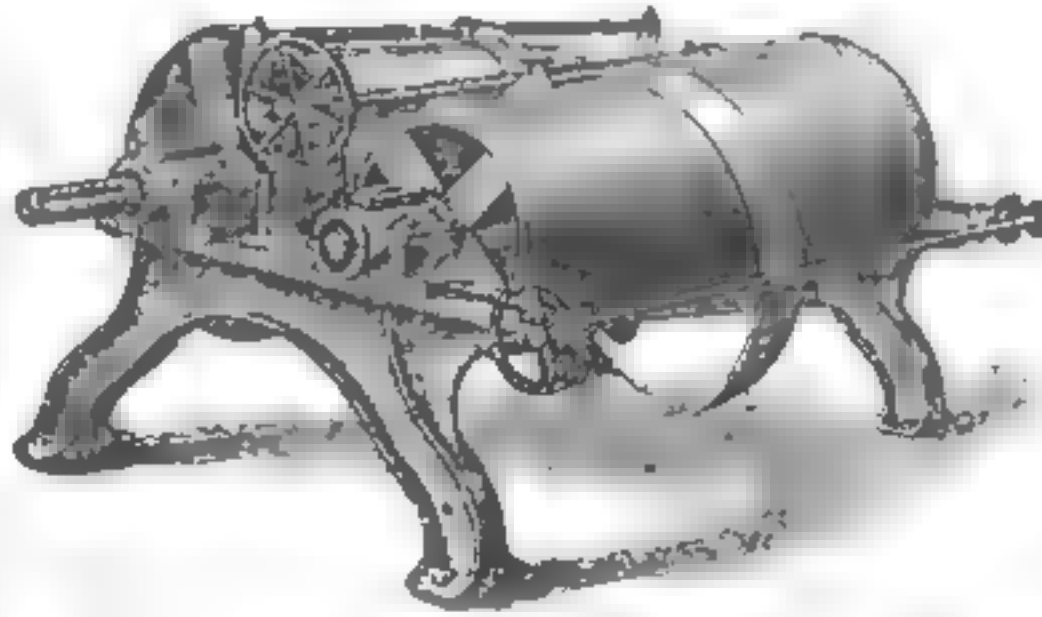
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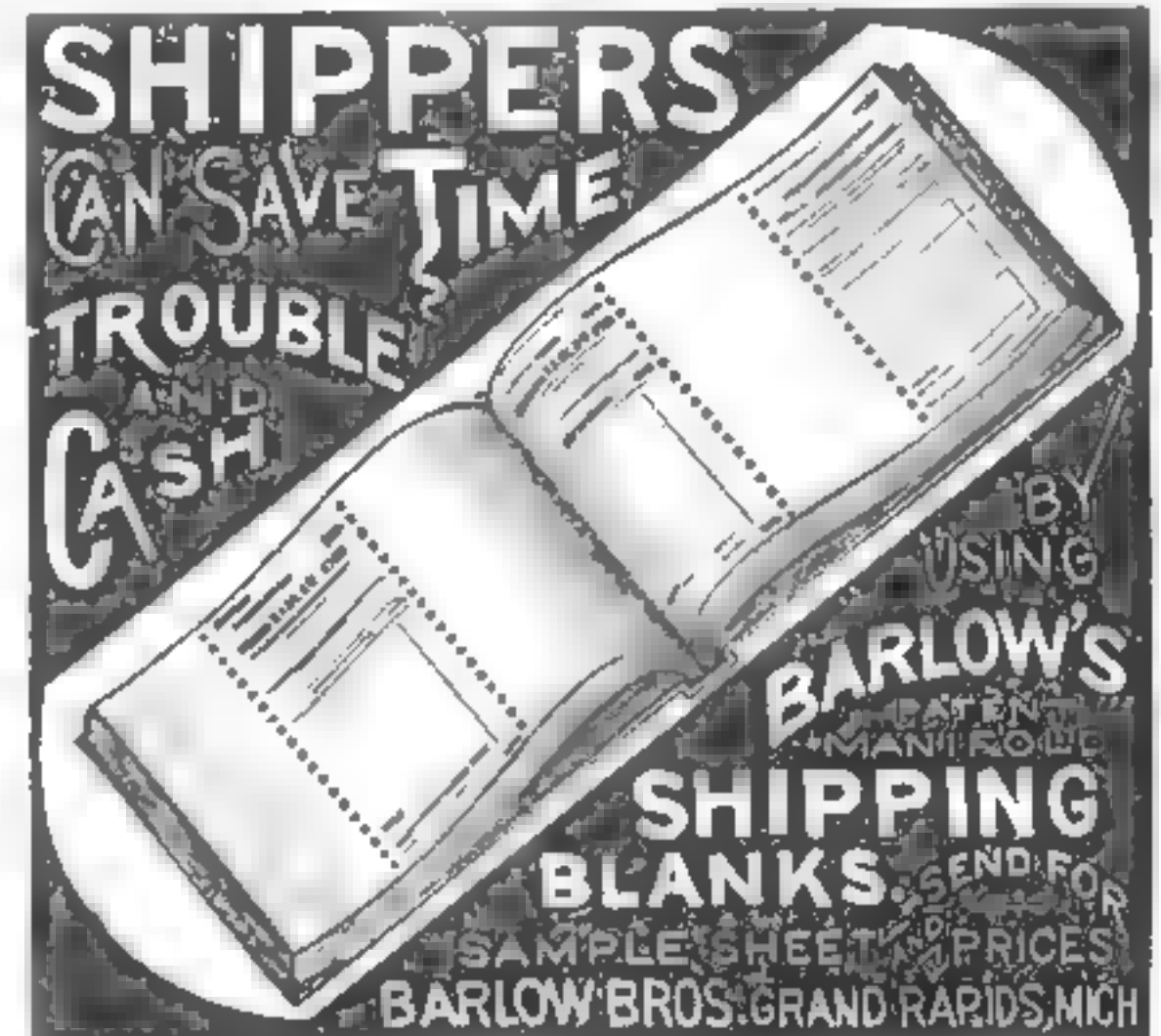


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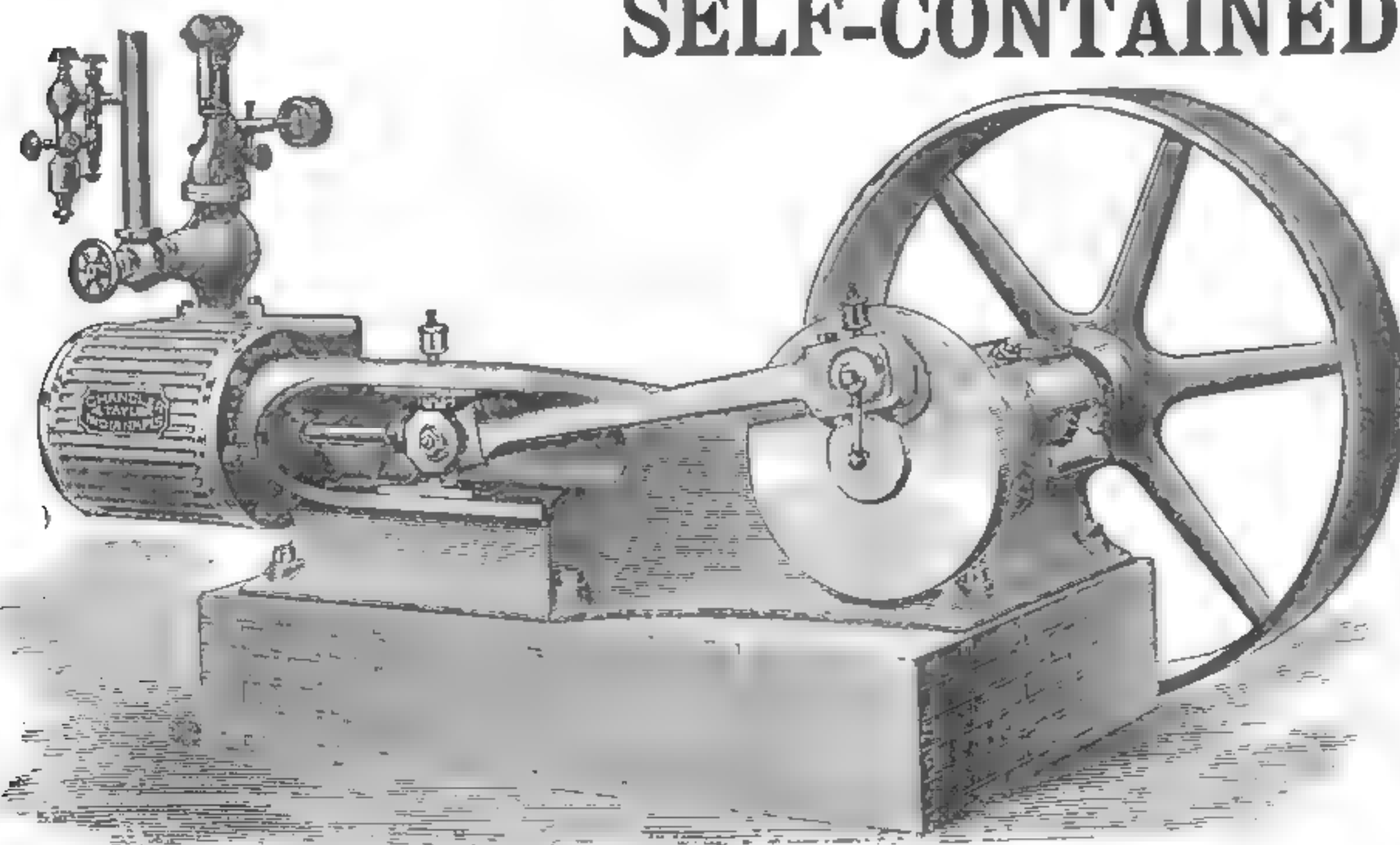
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NOTES & NEWS

I. Boyer, Pillow, Pa., remodels to rolls.
H. Zuck, Easton, Pa., improves his mill.
M. L. Greene, miller, Turner, Me., insolvent.
J. H. Weaver, Eshcol, Pa., remodels to rolls.
G. A. Cross, Albany, N. Y., improves his mill.
J. L. Goolsby, miller, Americus, Tex., attached.
S. Feat & Son, millers, Nukwonago, Wis., dissolved.
The Barton Mill Co., Bloomsburg, Pa., improve plant.
Walter Hurst, Magnolia, Ky., projects a flouring-mill.
Gilbert & Hodges, Ashville, Ala., will build a grist-mill.
C. H. Applegate, Bennett's Mills, N. J., remodels his mill.
Mr. Fleischall's grist-mill, Paris, Miss., burned; loss \$4,000.
John Graves, miller, Ephrata, Pa., assigned; assets \$10,000.
G. W. Culberson & Co., Jonesboro, Ark., build a flour-mill.
M. Zug & Son, Woodstock, Pa., build a 35-barrel roller mill.
C. W. Minnire, Central, Ark., rebuilds his burned grist-mill.
Jackson & Karns, Everett, Pa., remodeled to the short system.
Dwight & Stiff, millers, Plainwell, Mich., now W. Dwight.
John L. Ferguson, Ferguson, Ky., has rebuilt his recently burned grist-mill.

The Badgett grist-mill, near Laurens, S. C., was wrecked by a boiler explosion.

Stafford Bros., Salem Chapel, N. C., want a machinery outfit for a new flouring-mill.

The Lehigh Roller Mills, Freemansburg, Pa., are undergoing improvements and repairs.

Hillsboro, Texas, men have formed a \$20,000 stock company to build a roller-flouring-mill.

Kennedy & Morelock, flouring-mill, Martin, Tenn., are succeeded by F. M. Kennedy & Co.

The L. C. Porter Milling Co., Winona, Minn., are rebuilding their burned flouring-mill.

Van Dusen & Stevens' flouring-mill, Lockport, N. Y., burned; loss \$8,000; insurance light.

A. Stout, Shoemakersville, Pa., increased the capacity of his flouring-mill to 100 barrels a day.

Solomon Hannant, of the firm Solomon Hannant & Son, grist-mill, Milton, Ont., Can., is dead.

Gart & Co.'s flouring-mill, Gahanna, O., burned; loss \$12,000; insurance \$3,200; fire mysterious.

Corn-cob pipes have become so popular that a farmer near Washington, Mo., recently sold 100 bushels of corn for \$30 and got \$27 for the cobs.

It is said that "a kernel of corn which James Drew, of Preston, Conn., carried last spring for a pocket-piece, fell through a hole in his trousers, and nature planted it where it dropped, in an out-of-the-way spot on his farm. James let the cornstalk from the kernel grow, and it bore two mammoth ears. On one ear are 24 rows of kernels, and there are 700 kernels in all."

Board of Trader—"Waiter, a porterhouse steak, well done." Waiter—"Yessah!" (After an interval) Board of Trader—"Waiter, where's my steak?" Waiter—"Comin', sah." Board of Trader—"Well, it was for 'September delivery.'"—*America*. The national flour should be wheat.—*Tribune of Rome*. Nature does not cackle over an egg plant.—*New Orleans Picayune*. In poultry circles the old hen generally proves her good standing by her setting.—*Exchange*. American business men are looking to see much cream arise on that pan congress.—*Lowell Courier*.

A meeting of the Central Pennsylvania Association was held at Tyrone, Oct. 31. A circular letter from the Consolidated Roller Mill Co. was read and on motion laid on the table, and the secretary was directed to give notice to all members to pay no attention whatever to said circular letter.

Among the prominent members of the milling fraternity present were the following: Thomas K. Henderson, president central organization; William J. Yeager, secretary, Lewiston; B. F. Isenberg, Huntingdon, president of the State Association; W. D. Isett, Spruce Creek; James Lowther, Bellwood; A. B. Spanogle, Lewiston; John A. Crawford, Arch Springs; E. A. Miller, Huntingdon; John H. Miller, Tyrone; W. H. Long, Howard; John M. Wagner, Milesburg; William Fuoss, Tipton; Noble Brothers, Williamsport; George W. Smith, Clearfield; J. F. Ellsworth, Williamsburg, and a large number of others.

Says the Winnipeg, Manitoba, *Commercial* of November 18: Prices to farmers at country points through Manitoba have not shown much change, and 60 cents per bushel for best samples is still the ruling figure in most country markets. Three-quarters of the markets, including all the principal points, are quoted at 60 cents. At some smaller markets a difference of a few cents over or under this price is paid, as competition or other local features may affect prices. Since the season commenced about 2,000,000 bushels of wheat have moved eastward from Winnipeg, and this has been nearly all taken by the lake route to eastern points. The quantity of wheat held in country elevators here is light, as grain men have been shoving the stuff forward as fast as marketed in order to get it out by the lakes before the close of navigation. The movement eastward is now lighter. Further shipments can not now be made for carriage by the lakes, and so grain men will allow their country elevators to fill up. Speculation is now taken up with estimating the quantity of wheat remaining in farmers' hands for marketing. This is an unknown quantity, and estimates differ so widely that it is useless to repeat them. One thing may be noted, that receipts of wheat at country points have not increased as expected since the frost stopped plowing. This would indicate that the quantity held in first hands is within the limit of outside estimates.

BOOKS AND PAMPHLETS.

The November issue of the "Rand-McNally Official Railway Guide," published by the American Railway Guide Co., 148 to 164 Monroe st., Chicago, Ill., is an invaluable reference book for business and traveling men. It contains correct time-tables and distance-tables for all the railroads of the United States and Canada, and one fine large railroad map, which alone is worth the price of the volume.

The *National Magazine* for December will contain an interesting article by Prof. Schele de Vere, of the University of Virginia, entitled "A Chat About Numerals," giving many curious historical facts. Quite a noteworthy contribution to the poetic literature of America will be "The Nativity; a Christmas Carol," by F. W. Harkins, Chancellor of the National University of Chicago, whose Shakespearean essays are continued in this number. "The University Extension System of England" will prove a timely article, being supplemented by a description of a benevolent society for similar work lately organized in Chicago with headquarters at 147 Throop street, called "The University Extension and Home Culture Society." This scholarly magazine is the cheapest of our monthlies, being only \$1.00 per year. Sample copy 10 cents. Published the first of each month by the National University, of Chicago, Ill., whose novel teaching by mail will be described in this number.

The Christmas number of *Good Housekeeping* will have a paper from Edward Bellamy, author of "Looking Backward," entitled "Household Service Reform," in which Mr. Bellamy will look forward and give his ideas of how Household Service Reform may be practically developed. The celebration of Thanksgiving would be incomplete without being able to enjoy the literary feast provided in the pages of the latest issue of *Good Housekeeping*. It also gives directions for providing for the inner man, which will attract the attention of good housekeepers. The department of "Woman's Work and Wages" in *Good Housekeeping*, edited by Mrs. Helen Campbell, is exciting much interest among "business women" throughout the land. Correspondence is invited from all who are interested in this subject with the object of making this feature of practical value. An obituary of Mrs. Helen A. Nitsch (Catharine Owen), with portrait, is published in the last issue of *Good Housekeeping* of date of November 23, and can be procured of the newsdealers.



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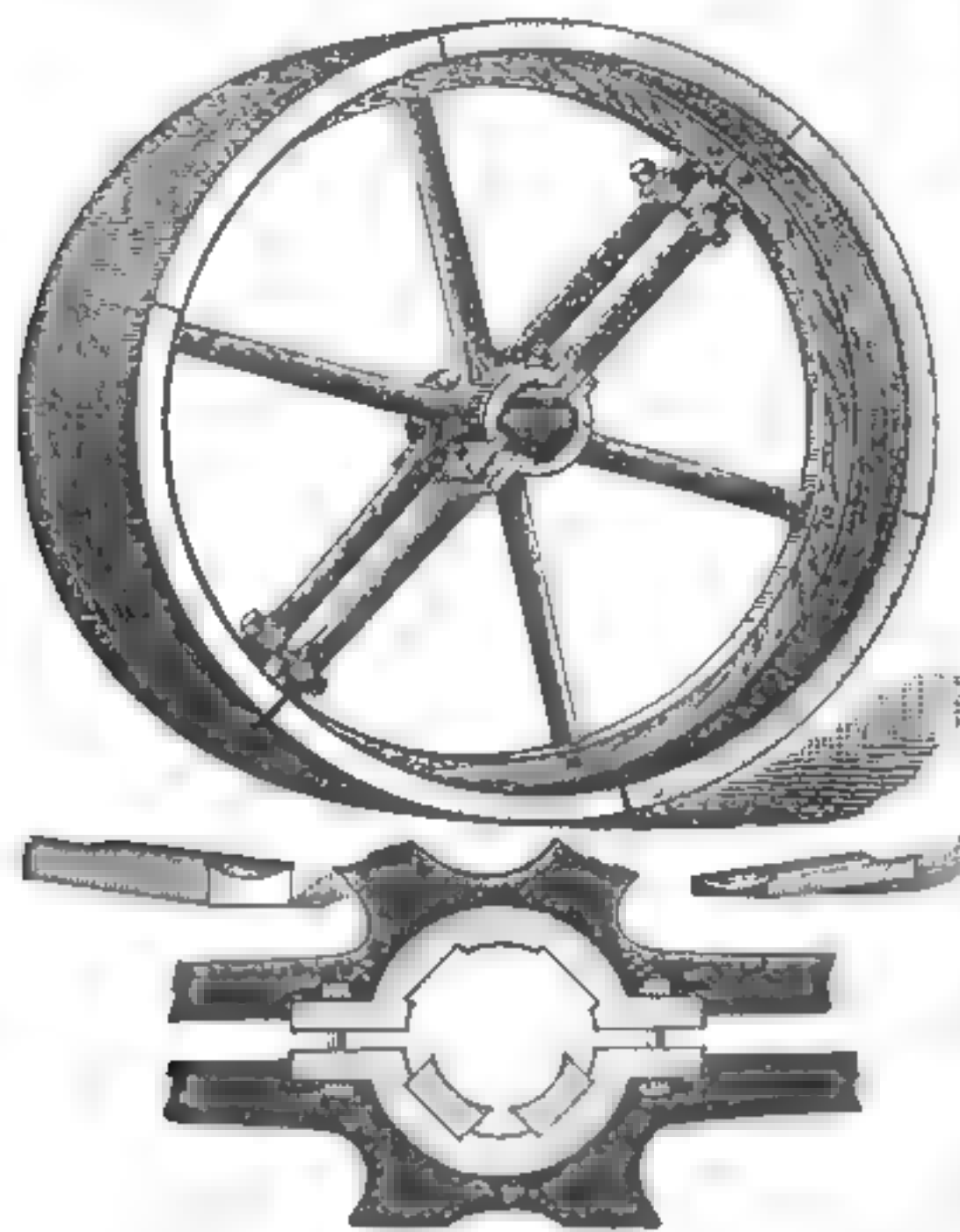


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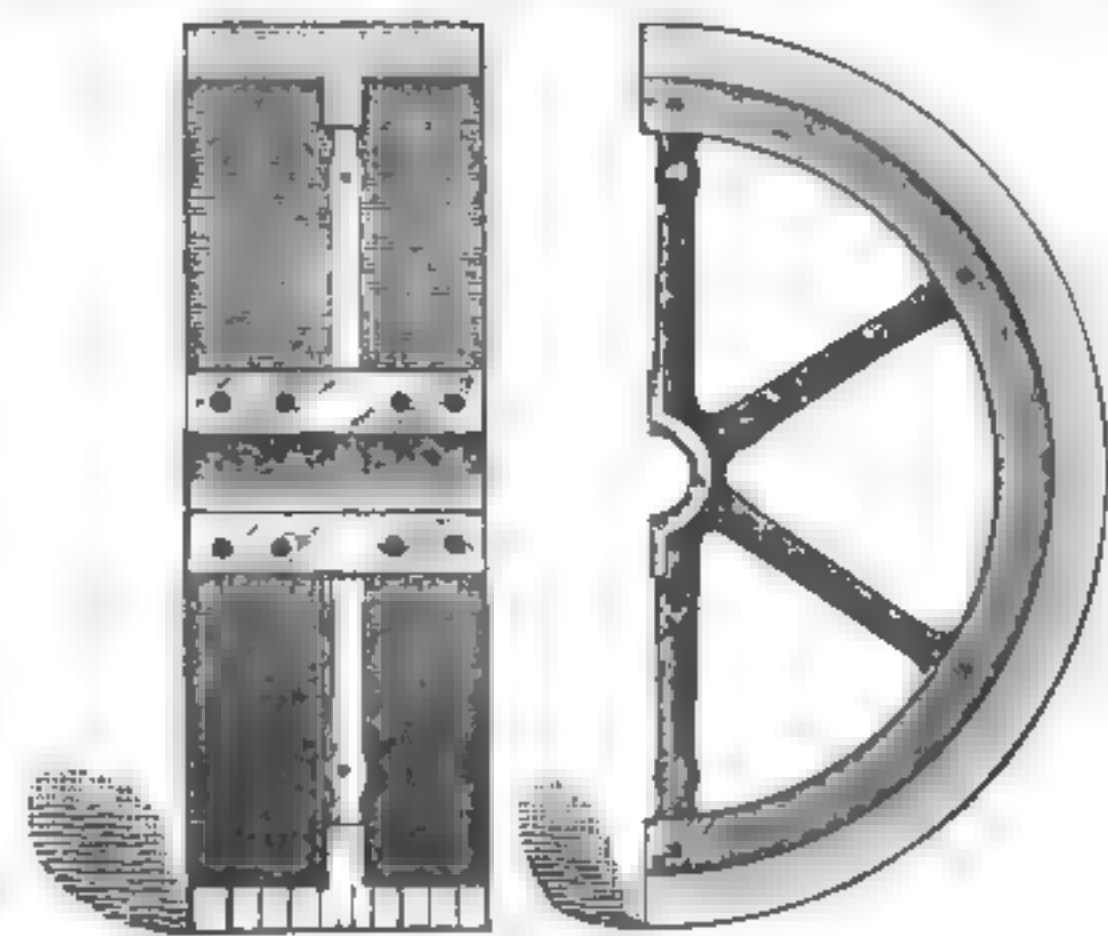
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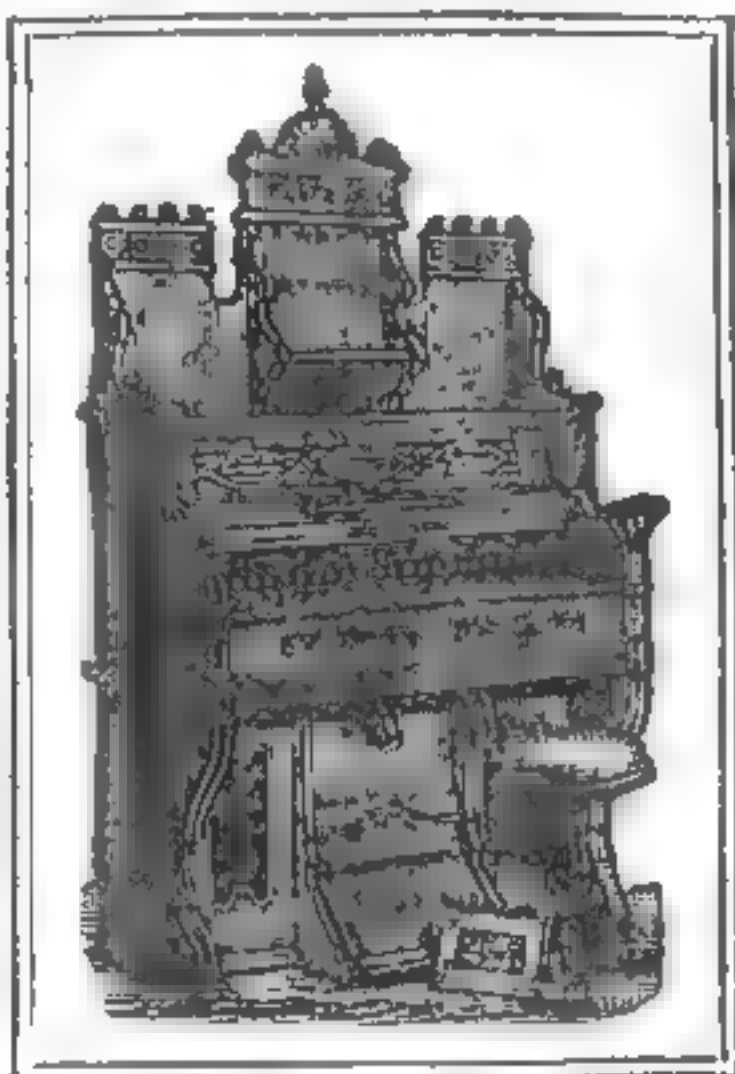


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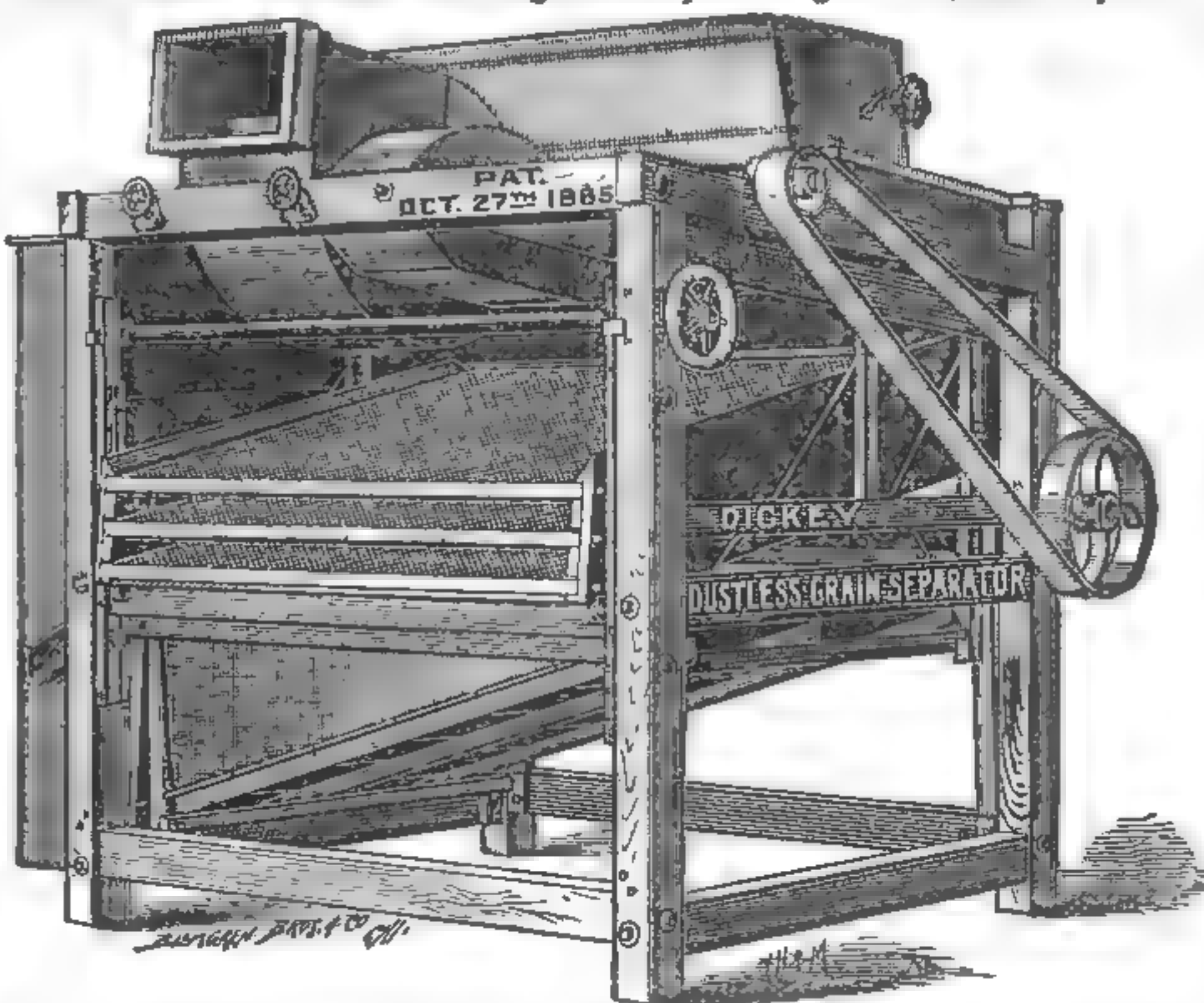


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EUROPEAN ECHOES.

THE imports of wheat into France from August 1 to September 30 have been 5,055,645 bushels, against 9,727,376 bushels last year, and 5,702,412 bushels in 1887. The stocks of wheat in bond in French custom houses October 1 were 6,652,960 bushels, against 7,208,557 bushels September 1, and 4,920,084 bushels last year. The decreasing stocks show the effects of the smaller imports. Crop reports are that full seeding is done in France with the area about as large as last year, and the crop is looking well.

SAYS the Liverpool "Corn Trade News" of November 8: We notice the imports of Russian oats into the United Kingdom during the past month, according to Board of Trade returns, have exceeded 450,000 quarters, while a cotemporary gives the official export of Russian oats to all countries as only 355,000 quarters during the corresponding four weeks. When it is considered that France, Holland, Belgium, Germany and Austria are all large importers of Russian oats, the discrepancy is somewhat important.

SAYS the London "Millers' Gazette" of November 4: Matters seem to be shaping for a strike among London operative millers, as well as bakers, unless hours of working are reduced. The operative millers have now a National Union, and on Saturday they held a meeting at Hodgson's Coffee Tavern, Deptford, Mr. Morton presiding. It was claimed that some men had to work 100 hours per week for a guinea (\$5), but were afraid to join the Union lest their masters should hear of it and dispense with their services entirely.

FROM Austria-Hungary the latest official figures of the exports of grain during the season 1888-89 are given as follows: Wheat 2,134,063 quarters; rye 43,204 quarters; barley 2,291,704 quarters; oats 329,512 quarters; flour 1,443,516 sacks. The export of wheat to Switzerland was about 782,000 quarters, to Germany about 552,000 quarters, to France about 322,000 quarters, to Italy about 75,000 quarters, and the rest, about 400,000 quarters to the United Kingdom. The import of grain was insignificant, amounting only to 400,000 quarters, including 5,000 quarters of wheat, 252,120 quarters of maize, and 129,000 quarters of oats. As the import of maize was balanced by the export, the country's produce was sufficient to meet the home requirements.

MR. J. M. CASE, the well-known American milling engineer and inventor, who is now located at 16 Euston Square, London, N. W., England, makes the following announcement to the English public: "I came to Europe, not with any intention of going into the milling trade, but for pleasure, rest and the placing on royalty of several of my recent milling inventions. Also to arrange, if possible, to have my rights under existing patents in roller-mills, &c., recognized where they have hitherto been ignored and my inventions appropriated. Not being able to effect satisfactory settlements, I have concluded to have my roller-mills and other inventions under my patents built in England, under my own supervision, so that parties desiring these machines can get them without danger of trouble from infringement suits. These machines will be built in better style and workmanship than by those who are copying them, and I hope to be able to sell at less price."

SAYS the London, England, "Financial Times": Southern Russia appears to have experienced a harvest disaster far worse in its character than the most pessimistic accounts had made out. We were prepared to hear that the grain crops had failed, but the figures now published by the Foreign Office are startling enough to justify a considerable drop in all Russian securities. Taking 100 as representing an average crop and comparing the chief sources of agricultural wealth, we have 240 as the aggregate value for the 1889 crops, comparing with 675 in 1888. Thus winter wheat stands for 40 against 110, spring wheat for 35 against 120, barley for 45 against 95, rye for 30 against 110, and oats for

20 against 80. This was even worse than was anticipated, but when, in addition to such widespread ruin as these figures infer, it is known that the linseed, colza and rape seed crops have similarly failed, investors may well take heed. Linseed is only 20 instead of 80, colza 20 against 40, and rape 30 against 40.

THE London Corn Trade Association has taken the trouble to obtain from Mr. Bernard Dyer, the analyst of Great Tower Street, an analysis of Indian wheats, crop 1888, shipped via canal, from the various monthly standards. The following shows the 12 months average:

	Barley, &c.	Dirt.	Total other than Wheat.
Bombay.			
No. 1 Club.....	—	—	3.68
Red Club.....	0.60	2.39	3.08
Soft Red.....	0.63	2.23	2.86
Hard Red.....	0.41	2.36	2.77
Hard White.....	0.18	2.77	2.95
Karachi.			
Red.....	6.26	1.24	7.50
White.....	6.12	1.37	7.49
Calcutta.			
No. 1 Club.....	2.22	2.09	4.31
No. 2 Club.....	—	—	5.12
Hard.....	1.20	2.25	3.45
Soft Red.....	2.01	2.79	4.80
Delhi			
Soft White.....	3.20	2.21	5.41
Soft Red.....	3.20	1.21	4.41
Jubblepore.			
White.....	1.64	2.08	3.72
Atbara.....	0.85	2.52	2.87

The term "barley, &c." used above includes all grain of intrinsic value, such as barley, oats, peas, linseed, &c. The term dirt includes earth, chaff and miscellaneous weed seeds. The particulars, as to the amount of dirt, &c., in the most important wheats, No. 1 Club Bombay and No. 2 Calcutta, are not specified. Commenting on this showing, the London "Millers' Gazette" says that it is expected that the East Indian Wheat Committee of the London Corn Trade Association will at its next meeting pass a resolution by which it is hoped that some improvement may be effected in the Indian wheat trade. According to this proposal two standards of impurities will be made up, the one referring to ante-monsoon shipments, those up to June 30, and the other to post-monsoon shipments, from July 1 onward. It is proposed to reduce the total impurities in Bombay, Jubblepore and Atbara wheats to 3 per cent., of which $1\frac{1}{2}$ per cent. may be "dirt." For Delhi and Nos. 1 and 2 Club Calcutta wheats the total impurities are to be fixed at 4 per cent., of which $1\frac{1}{2}$ per cent. may be "dirt." For soft red Calcutta the standards will be $4\frac{1}{2}$ per cent. and 2 per cent. respectively; for hard red Calcutta 3 per cent. and $1\frac{1}{2}$ per cent.; and for Karachi wheats 5 per cent., with $1\frac{1}{2}$ "dirt." These standards will refer to shipments up to June. For post-monsoon shipments the limit of impurities is fixed rather higher. In the case of Bombay and White Jubblepore wheats the total is fixed at $3\frac{1}{2}$ per cent., of which 2 per cent. may be "dirt;" For Delhi wheats at 5 per cent. and 2 per cent.; and for Karachi wheats at 7 per cent. and 3 per cent. respectively. For Calcutta wheats the limits of impurities are also raised for post-monsoon shipments. It will thus be seen that some efforts have been made in the direction of obtaining cleaner Indian wheats, but the "2 per cent. limit" has been found impracticable.

We hear that the underwriters are landed with over a million of the capital of the Pillsbury-Washburn Flour Mills Company, Limited, the public subscription having been somewhere about £400,000. Happy Trust Companies! Now we may expect another trust company to relieve the loads of those which have been caught in connection with the concern referred to. Names for these institutions are getting scarce, but we offer the Trustees, etc., etc., etc., Corporation the following short and expressive title, free of charge: "The Trustees, Executors and Securities Insurance Corporation Overloaded Trust Companies Relief Trust, Limited."—London, England, "Financial Times" of November 6.

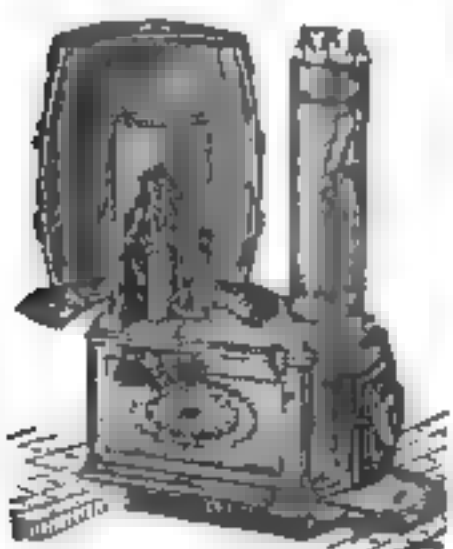
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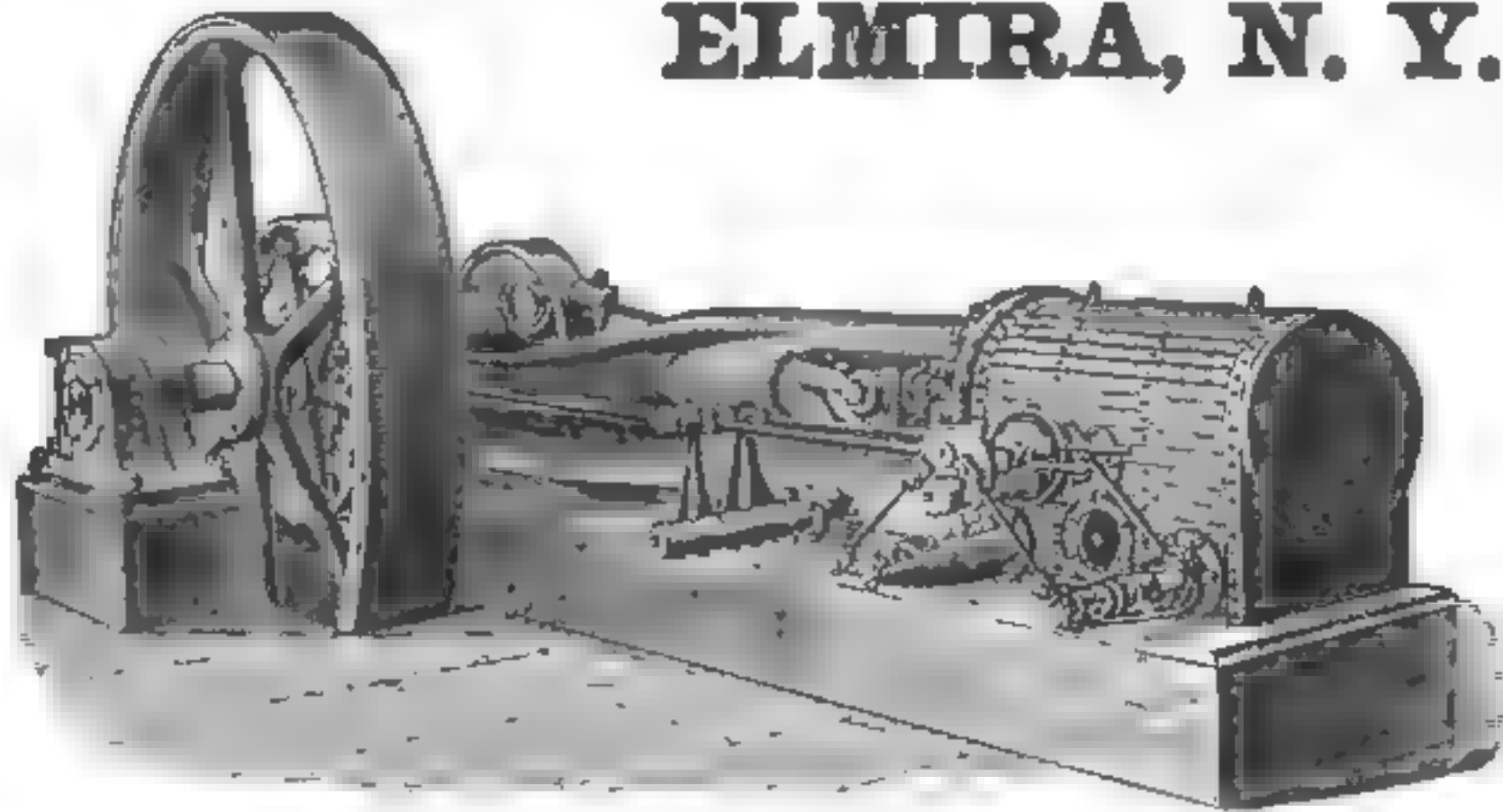
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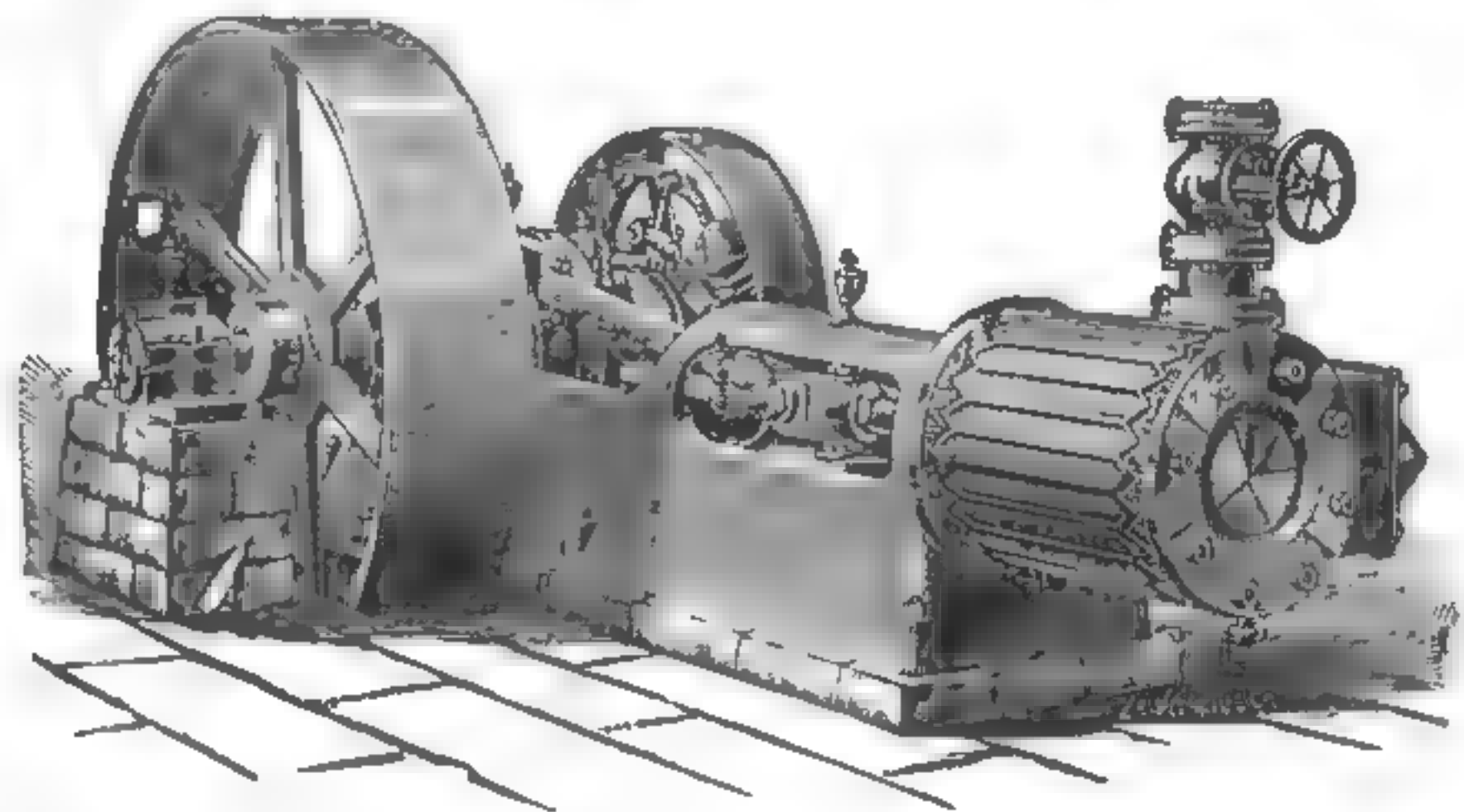
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OFFICE OF THE MILLING WORLD,
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Friday of last week was a day of higher and more active markets, on increasing speculation, better home and export demand and growing confidence in prices both at home and abroad. In New York November wheat closed at 84½c., with Atlantic port receipts 129,103, exports 340,396 and options 10,300,000 bushels. It was reported from London that the wheat stocks at Odessa, Russia, are only about 6,000,000 bushels, against 12,000,000 a year ago. November corn closed at 42½c., with receipts 148,000, exports 52,447, and options 500,000 bushels. November oats closed at 27½c., with receipts 109,000, exports 26,000, and options 400,000 bushels. Wheat flour was in better demand and firmer in price. Receipts were 46,681 packages and exports 46,653 sacks and 9,345 barrels. Spot sales 28,000 packages. No other line showed quotable changes.

Saturday brought a general reaction on heavy realizing. November wheat in New York closed at 84½c., with receipts 98,000, exports 43,000, and options 3,136,000 bushels. Interior receipts of spring wheat were 628,000, and of winter 71,000 bushels. For the week entire receipts were 4,750,000, and clearances were 2,669,000 bushels, flour and wheat. November corn closed at 41½c., with receipts 204,530, exports 183,000, and options 760,000 bushels. November oats ruled at 27½c., with receipts 94,300, exports 21,800, and options 360,000 bushels. Wheat flour was more active, with an upward tendency on both low and high grades. The receipts included 62,059 packages, and the exports 43,699 sacks and 915 barrels. The other lines were quiet.

Monday brought lower markets on selling by heavy traders and realizing by the lesser "longs." November wheat closed at 84½c., with receipts 211,594, exports 27,810, and options 2,500,000 bushels. Interior receipts were over 1,000,000 bushels. November corn closed at 41½c., with receipts 187,000, exports 285,400 and options 856,000, bushels. November oats closed at 28½c., with receipts 214,440, exports 6,547, and options 600,000 bushels. Spot trading was good. Wheat flour was cabled easier in England for winter trade brands and firmer and in some cases up for spring patents. Receipts included 67,488 packages, and exports 7,170 sacks and 6,848 barrels. The other lines were featureless. The visible supply in the United States and Canada was as follows:

	1889.	1888.	1887.
	Nov. 16.	Nov. 17.	Nov. 19.
Wheat.....	28,401,779	34,811,794	38,871,956
Corn.....	6,091,065	8,190,520	6,570,884
Oats.....	6,235,217	7,756,287	6,468,368
Rye.....	1,176,154	1,581,574	313,267
Barley.....	2,748,559	1,813,918	3,474,777

Tuesday was a day of generally dull and easier markets. November wheat closed at 84½c., with receipts 78,693, exports 46,435, and options 3,000,000 bushels. November oats closed at 28½c., with receipts 156,915, exports 63,195, and options 280,000 bushels. Wheat flour was dull on the weakness in wheat, but the prices were not quotably changed. The receipts included 71,677 packages, and the exports 2,300 sacks and 2,523 barrels. Spot sales were 14,000 packages. The minor lines were featureless.

The following shows the amount of wheat and flour, together with the amount of corn on passage to United Kingdom, for ports of call or for the weeks mentioned:

	1889.	1888.
	Nov. 19.	Nov. 20.
Wheat and flour, qrs....	1,799,000	2,530,000
Corn.....	303,000	121,000

The following shows the amount of wheat and corn on passage to the Continent for the past week and for the same week last year:

	1889.	1888.
	Nov. 19.	Nov. 20.
Wheat, qrs.....	468,000	613,000
Corn, qrs.....	175,000	35,000
Shipments India wheat to U. K.....		50,060
do do Continent..		15,000

The imports into the United Kingdom for the past week and for the same weeks in previous years were as follows:

	1889.	1888.	1887.
	Nov. 19.	Nov. 20.	Nov. 23.
Wheat, qrs.....	283,000	228,000	226,000
Corn, qrs.....	205,000	67,000	153,000
Flour, bbls.....	229,000	109,000	168,000

Wednesday brought dull and unchanged markets. November wheat closed at 84½c., with receipts 112,773, exports 38,719, and options 3,328,000 bushels. Interior receipts were 868,843 bushels. November corn closed at 42c., with receipts 112,773, exports 144,161, and options 408,000 bushels. Interior receipts were 431,597 bushels. November oats closed at 28½c., with receipts 169,044, exports 11,568, and options 500,000 bushels. Buckwheat was easy at 48c. to arrive. Rye grain was scarce and nominal at 56@57c. for No. State, 55½c. for No. 2 Western spot, delivered, and 50@53c. for car-lots ungraded. Barley was dull at the following figures: Two-rowed offered at 55c.; six-rowed 59c. asked; Canada at 59@75c. for both extremes; Western, 50@60c. Malt was dull and in buyers' favor at the following figures: Fair to choice two-rowed 70@75c.; do six-rowed 70@80c.; country-made Canada 75@85c.; city do 80@90c. Mill feed was irregular, some mills getting 65c. and others unable to get over 60c. on the difference in quality. Some dealers sold 40 and 60 lbs. at 65c.

Wheat flour was dull and easier on the whole list, in sympathy with wheat and on poor demand. Both jobbing and export deals were small and insignificant. The Atlantic port receipts included 11,010 sacks and 32,559 barrels, and the exports were 2,319 sacks and 8,896 barrels. The quotations were as follows:

SPRING FLOUR.		
	Sacks.	Barrels.
No grade.....	\$1.55@1.65	\$....@....
Fine.....	1.85@2.10	2.00@2.25
Superfine.....	2.10@2.35	2.35@2.70
Extra No. 2.....	2.35@2.65	2.60@2.90
Extra No. 1.....	3.05@3.25	3.30@3.60
Clear.....	3.10@3.40	3.45@3.55
Straight.....	3.85@4.25	4.20@4.75
Patent.....	4.65@4.85	4.85@5.25

WINTER FLOUR.		
	Sacks.	Barrels.
No grade.....	\$1.65@1.90	\$....@....
Fine.....	2.10@2.40	2.20@2.50
Superfine.....	2.45@2.65	2.45@2.70
Extra No. 2.....	2.50@2.80	2.60@2.90
Extra No. 1.....	2.90@3.90	3.05@3.80
Clear.....	3.45@3.80	3.75@4.05
Straight.....	4.05@4.10	4.15@4.50
Patent.....	4.30@4.50	4.55@5.00

CITY MILLS.	
W. I. grades.....	4.25@4.35
Low grades.....	2.40@2.50
Patents.....	4.90@5.50

Rye flour was firm, but dull, at \$3.10@3.40 for most brands and at \$3.50 for some choice. Buckwheat flour was dull at \$1.50@1.65 for good to choice, with some dealers holding for \$1.70@1.75, and \$1.80 the top of the markets. Corn products were steady at the following quotations: 82@83c. for coarse; fine white and yellow 94@95c.; Western and Southern 80@95c. in bags and \$2.50@2.60 in bbls. Brandywine and Sagamore, \$2.65.

Thursday brought but little change in the markets. November wheat closed at 81½c., with receipts 22,850, exports 94,700, spot sales 131,000, and options 1,408,000 bushels. November corn closed at 42c., with receipts 22,200, exports 94,494, spot sales 212,000, and options 360,000 bushels.

November oats closed at 28½c., with receipts 24,000, spot sales 142,000, and options 860,000 bushels. Wheat flour was steady, with receipts 49,266 packages and sales 20,250 barrels. Prices included the following: Low extras \$2.50@2.85; city mills \$4.25@4.40; city mills patents \$4.75@5.60; winter wheat low grades \$2.50@2.85; fair to fancy \$3.00@4.60; patents \$4.15@5.15; Minnesota clear \$3.15@4.10; do straights \$3.65@4.85; do patents \$4.25@5.40; rye mixtures \$3.15@3.85; superfine \$2.10@2.80. The minor lines were unchanged and generally featureless.

BUFFALO MARKETS.

WHEAT—The market was very quiet to-day and the feeling is easier. No 1 hard, in store, is held at 91c. and 1,000 bushels were sold at that. No. 1 Northern c. i. f. was offered at 85½c. and 8,000 bushels spot sold at 86½c. A sale was also made at 85c. c. i. f. Red winter in store is firmly held at 84½@85c. for No. 2. Some extra No. 3 was sold at 80c. No. 1 white is held at 84c. No. 2 do at 79@80c. extra No. 2 at 82c. and 76@77c. was asked for No. 3 white on track. **CORN**—The market is stronger than on yesterday. No. 2 mixed is quoted at 89½c. and No. 2 yellow at 40c. in store. The market closed steady at these prices, with very little trading done. **OATS**—The market is firm at 27½c. on track for No. 2 white, and 23,000 bushels were sold at that price. No. 2 mixed is nominal, as there is little of that sort here. **BARLEY**—Trade remains dull, although some sales occur. The range is 56 to 65c. for Canada. State is 52@55c. Western is quoted at 40@60c.

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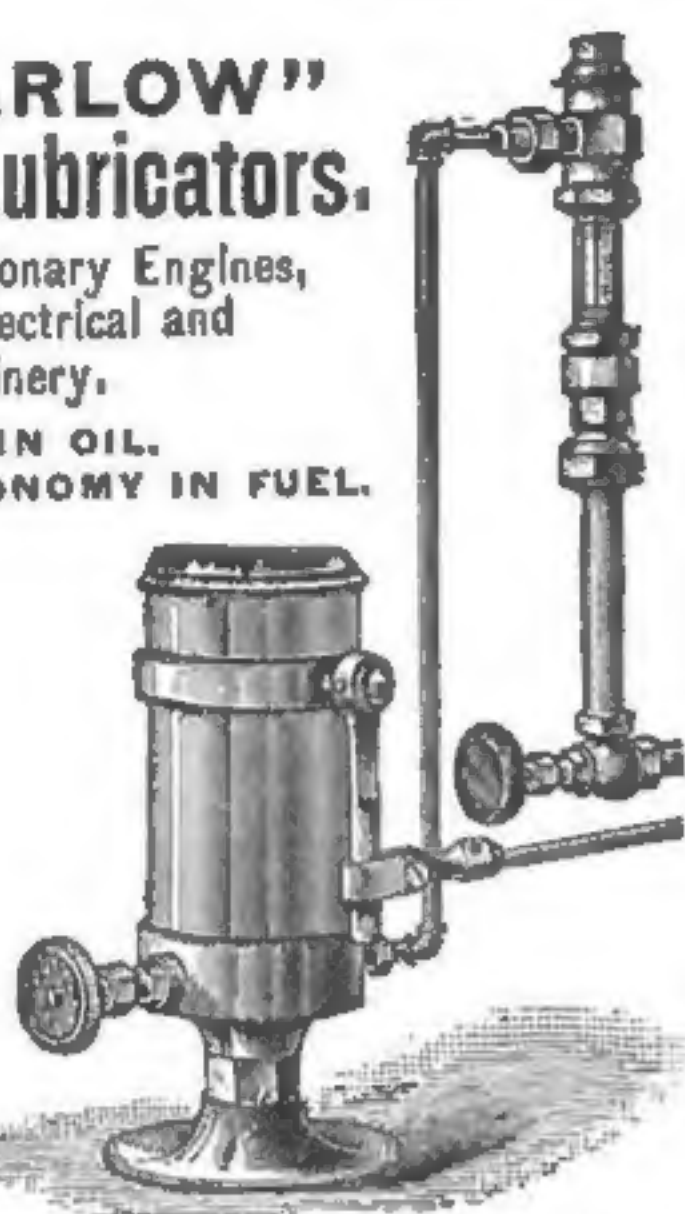
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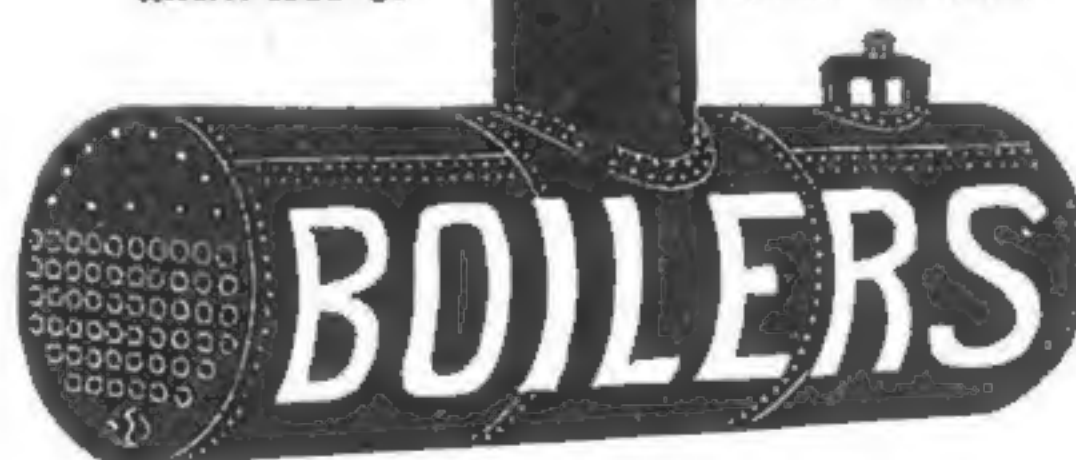
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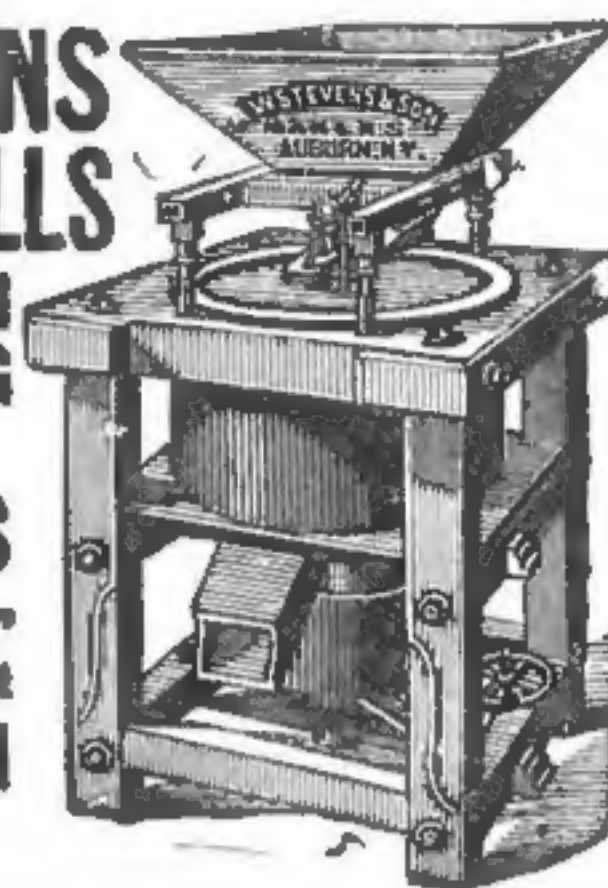
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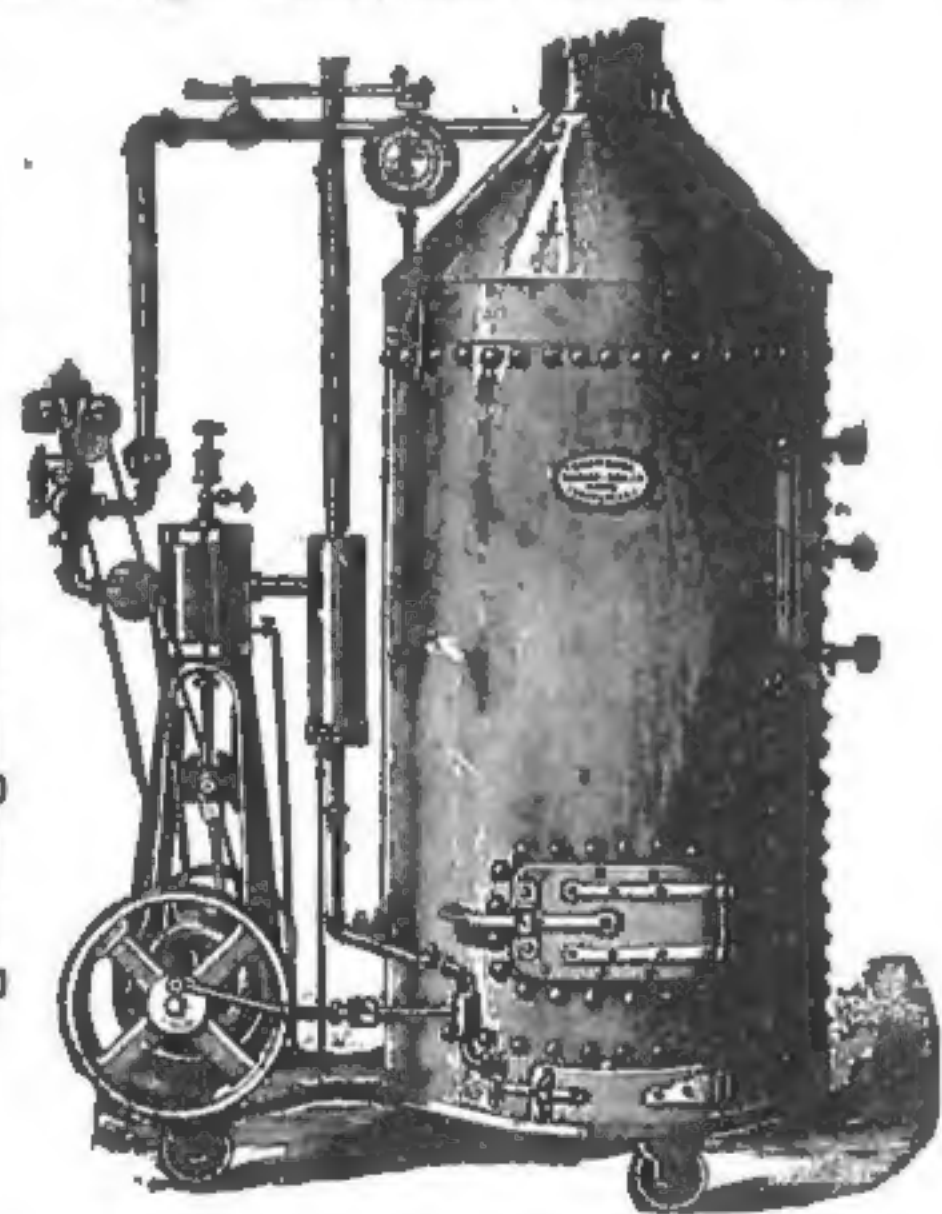
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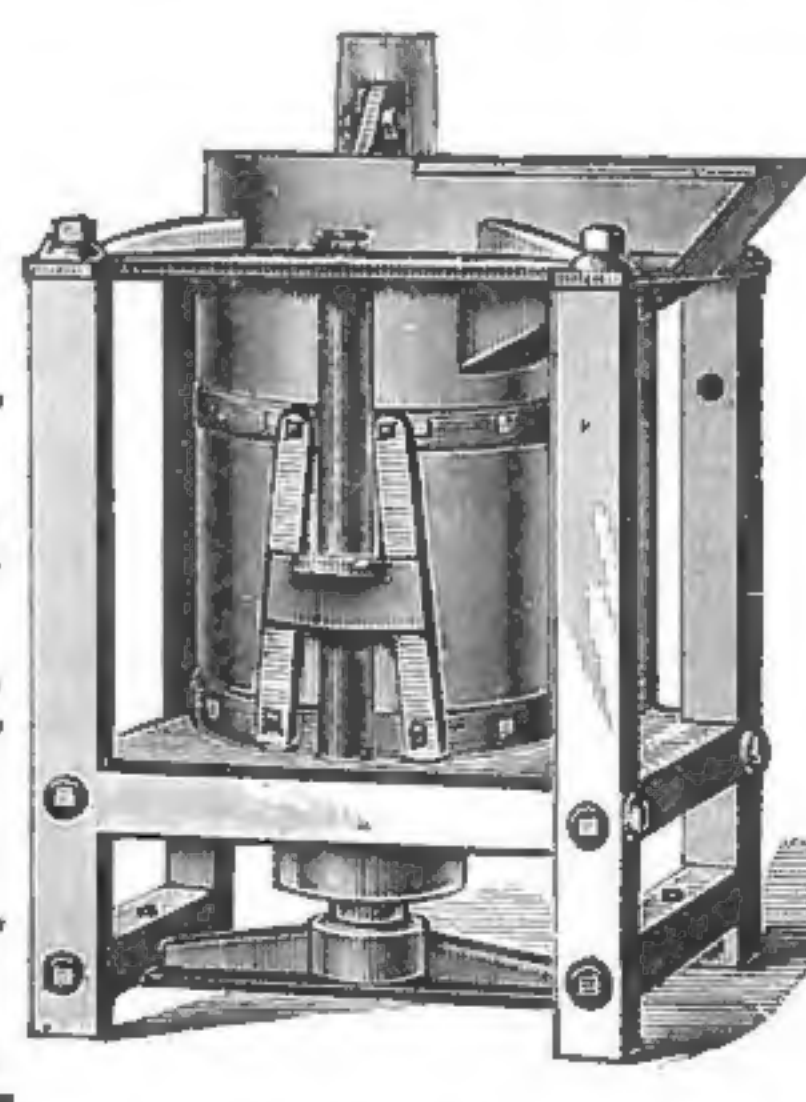
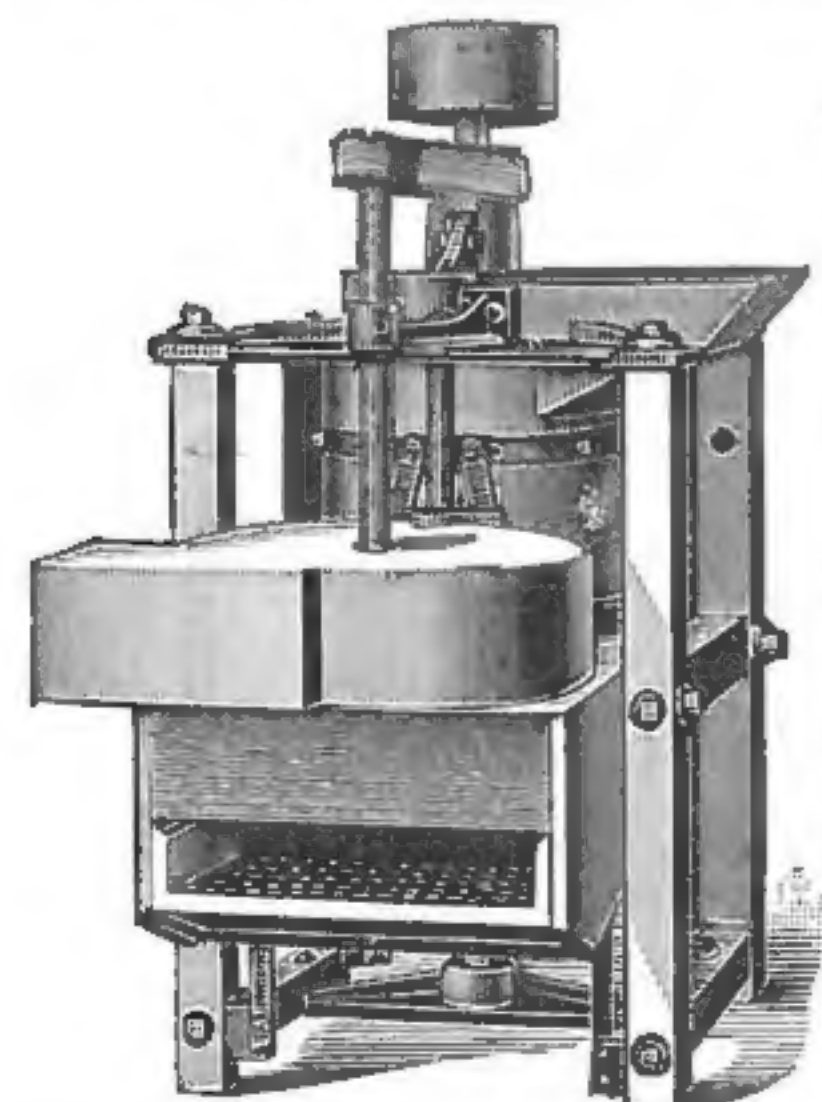
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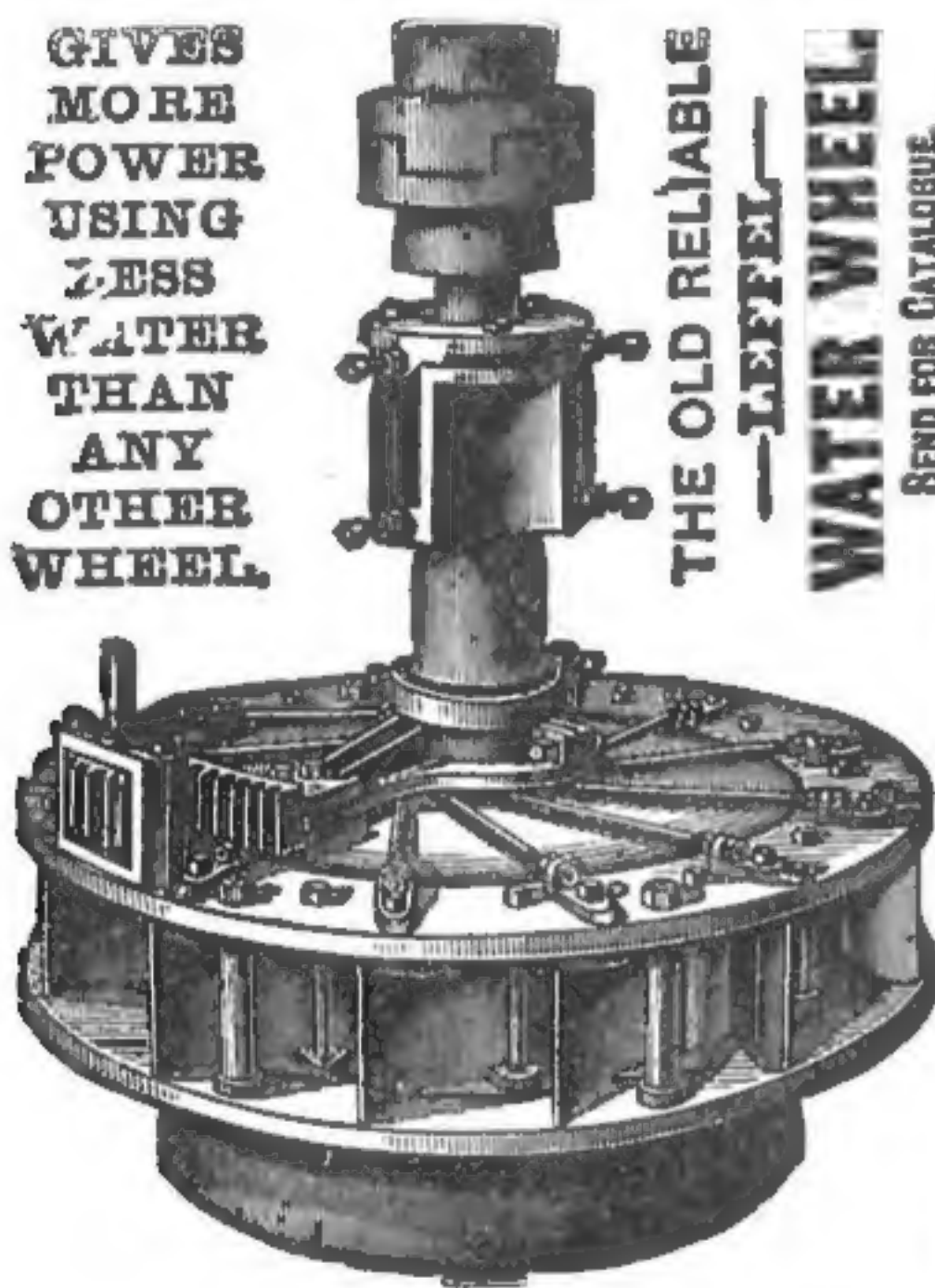
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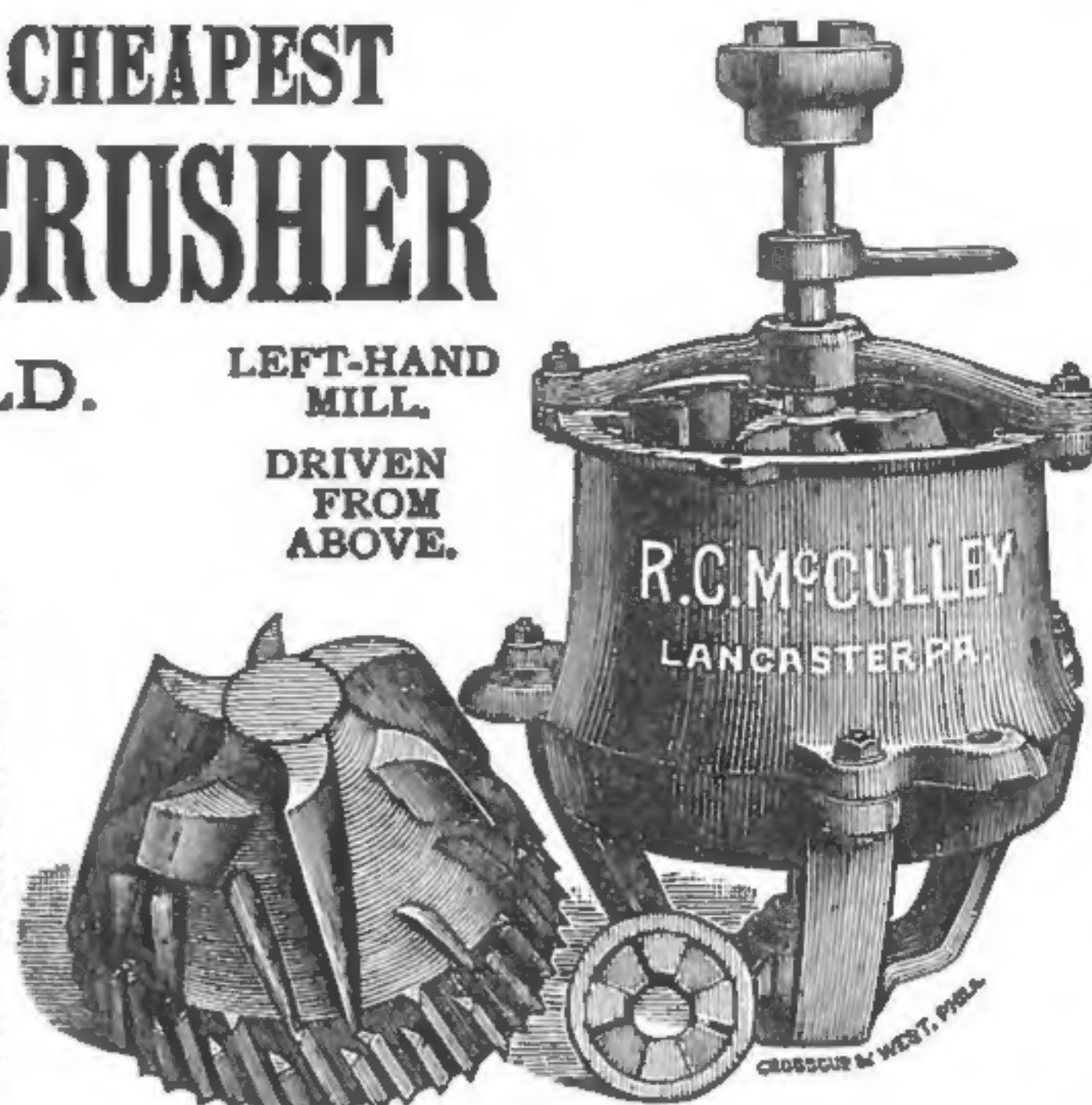
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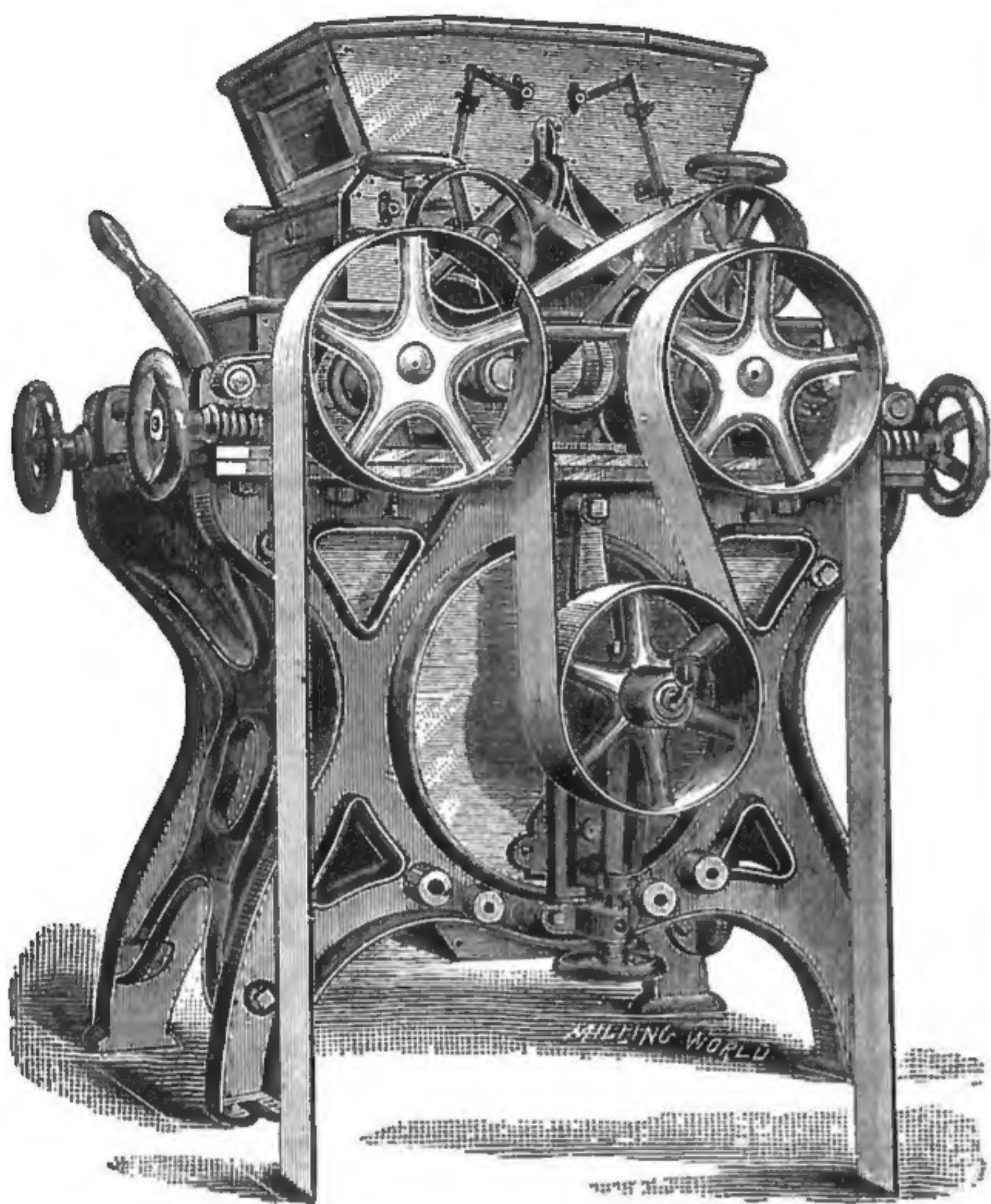
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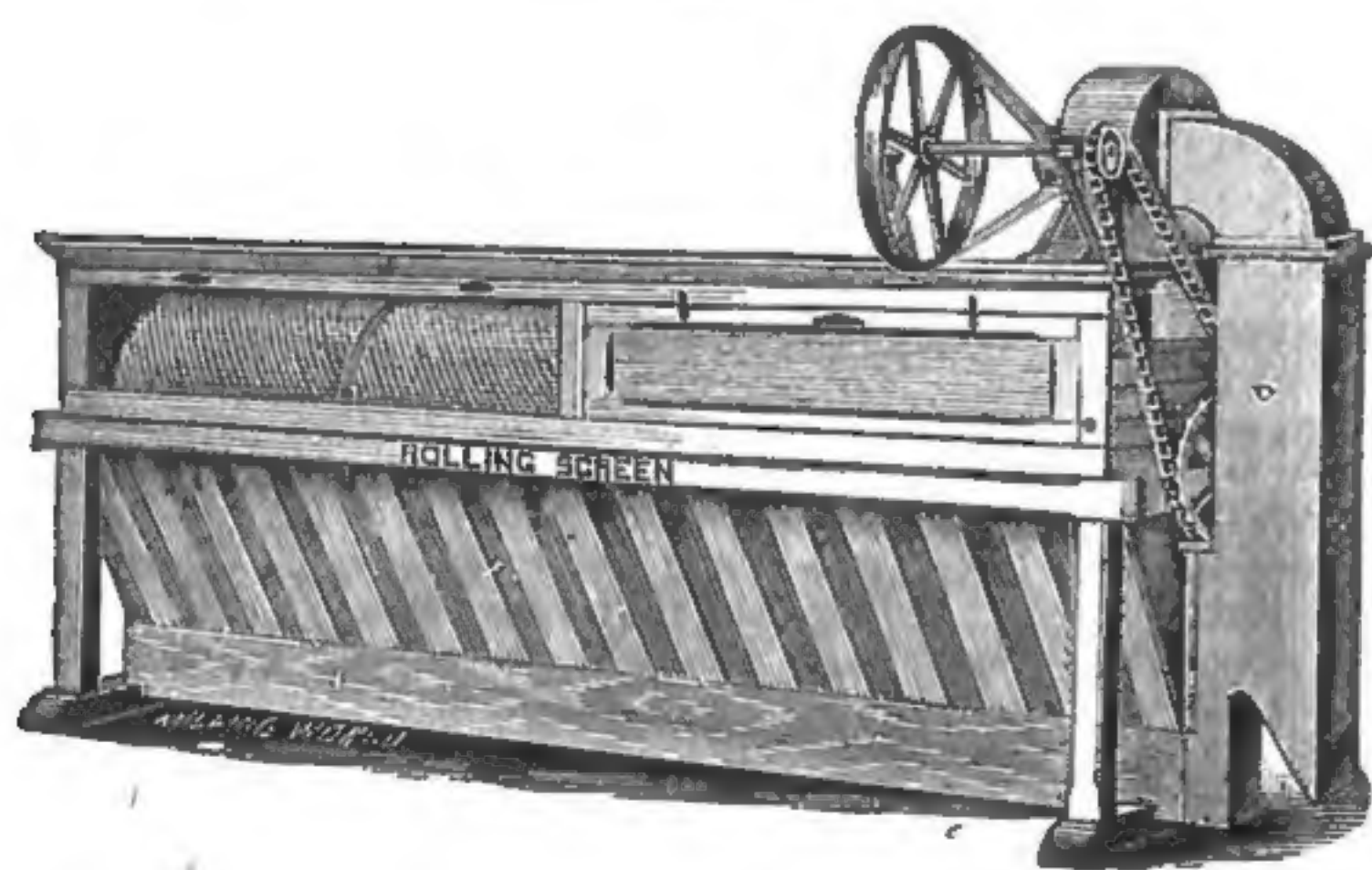
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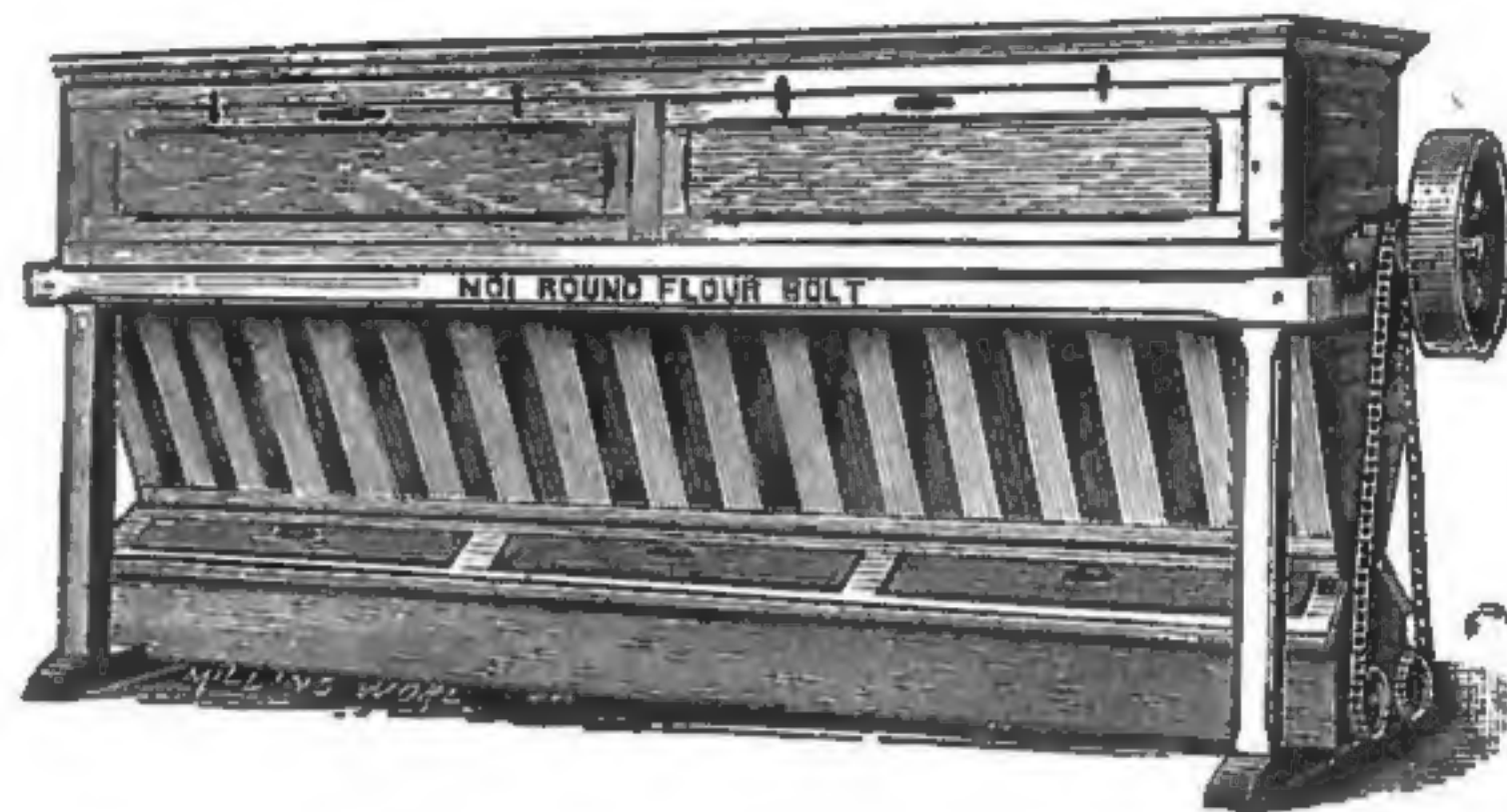
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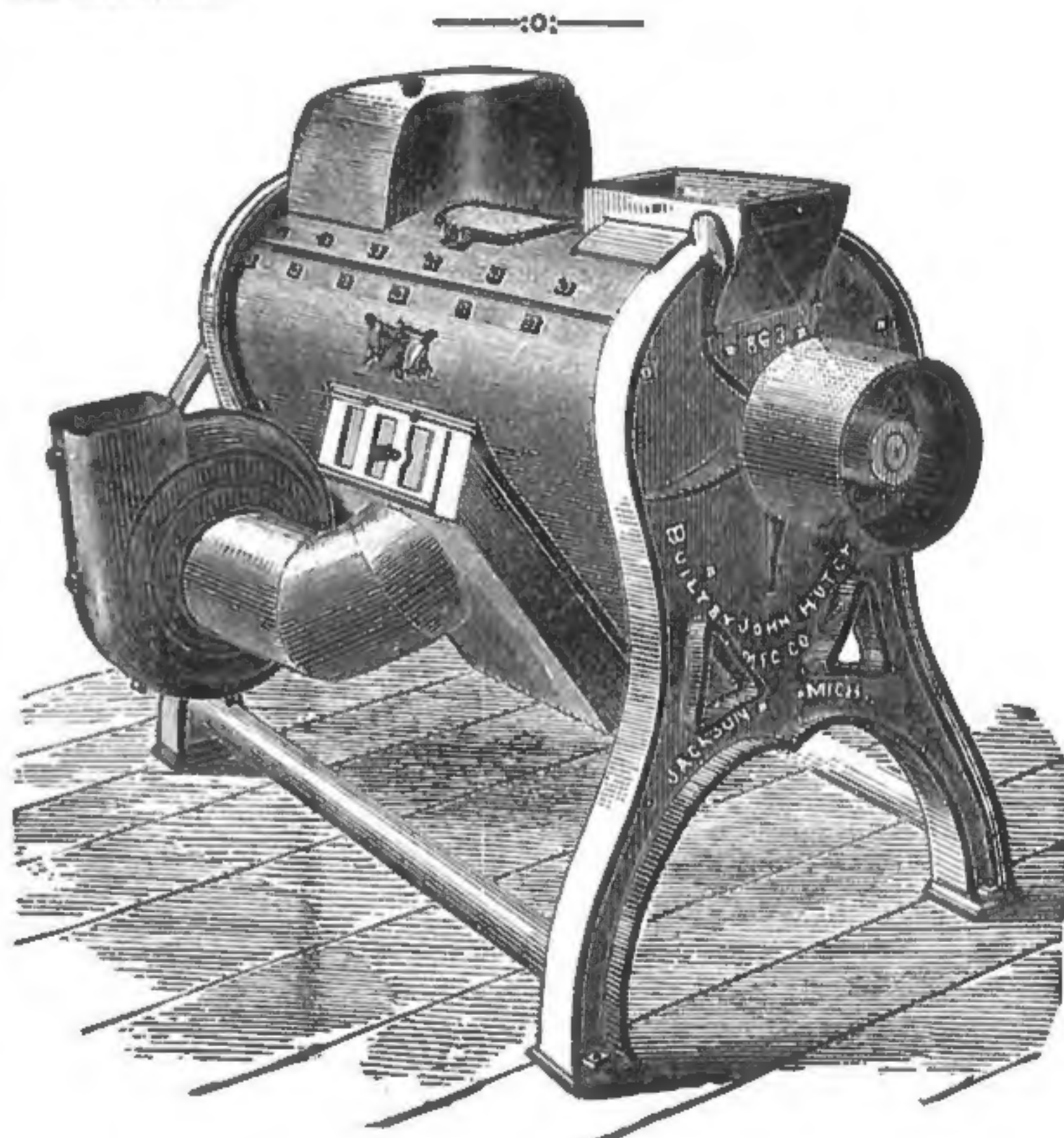


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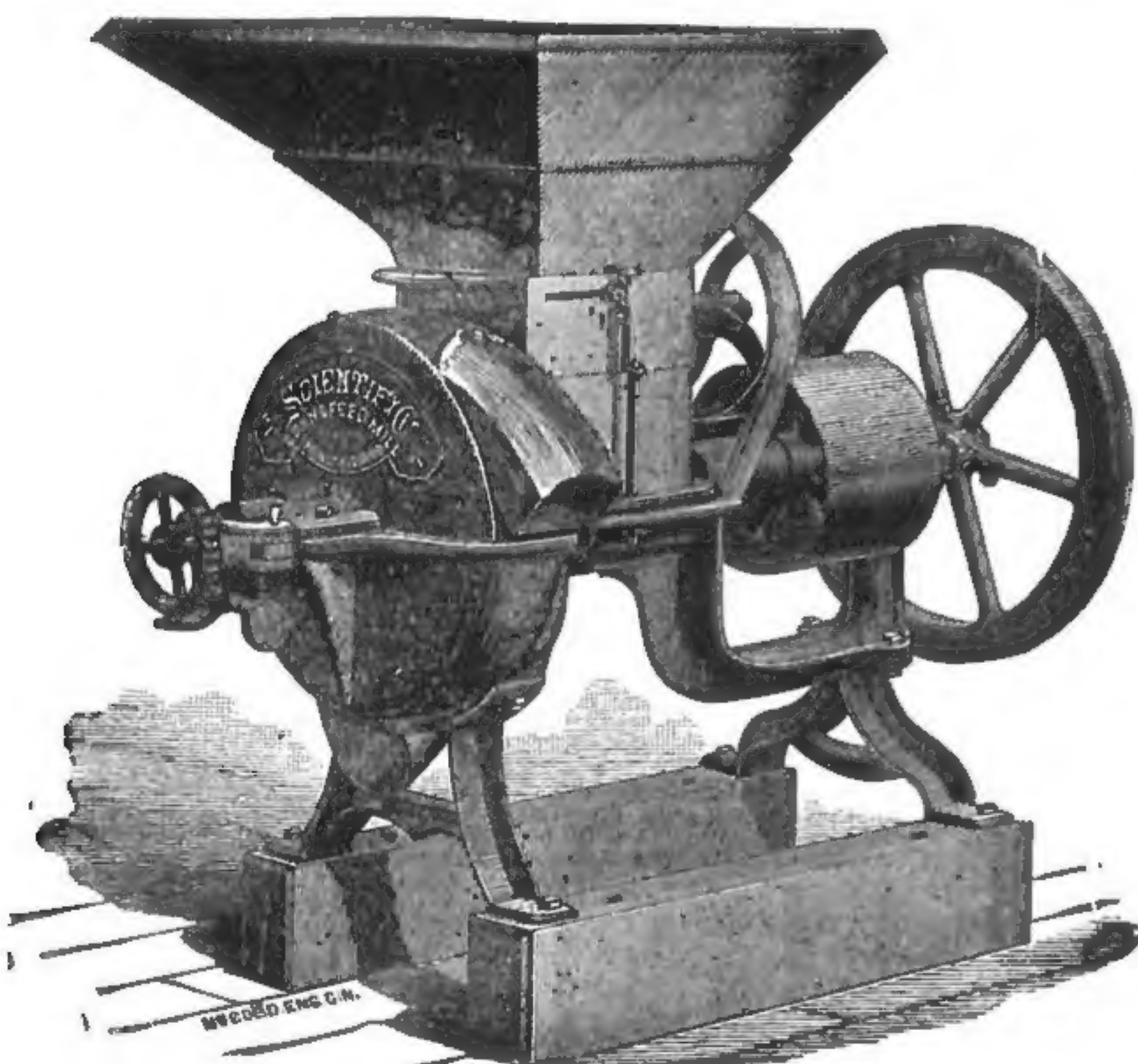
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